

EDWARDS'S
BOTANICAL REGISTER:

OR,

ORNAMENTAL FLOWER-GARDEN
AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,
CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

HISTORY, BEST METHOD OF TREATMENT IN CULTIVATION, PROPAGATION, &
AND

MONTHLY CHRONICLE
OF

BOTANICAL AND HORTICULTURAL NEWS.

CONTINUED

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&c. &c. &c.

1845

—vixit semper—nec fronde caduca
Carpitug.

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M.DCC.C.XLV.



Reddy, P. Ridgway 170. Saguinellia. April 1, 1886.

MELALEUCA fulgens.

Scarlet Melaleuca.

POLYADELPHIA ICOSANDRIA.

Nat. Ord. •MYRTI (recentius MYRTACEI.) Jussieu gen. 322.

DE ~~M~~ Flores in foliorum axillis aut in pedunculis multifloris oppositi. Folia plerumque opposita et punctata.

MELALEUCA. Cal. turbinate, limbo 5-sido, deciduo. Pet. 5, parva, summo calyci inserta, ejusdem laciiniis alterna. Fil. basi connata in fasciculos 5 (elongatos Brown.) sub petalis insertos: anth. oblongae, incumbentes. Stylus 1. Jussieu l. c. 323. Caps. 3-loc., polysperma, connata et inclusa calycis tubo incrassato basi adnata. (ramo.) Brown in Hort. Kew. ed. 2. 4. 410.

Erutices rarius arbores: flores saepius in spicam cylindricam summis foliis infernatem dispositi. Folia alterna, opposita v. verticillata, simplicia, plerumque punctata.

Div. *folia opposita v. verticillata.*

M. fulgens, foliis oppositis lanceolato-linearibus acutis uninervibus, spicis ovalibus glaberrimis, phalangibus (*staminum*) multifidis: unguibus (*phalangium*) longitudine petalorum. Brown in Hort. Kew. ed. 2. 4. 415.

Arbuscula rigida, erecta, ramosa; cortex cineraceous-fuscescens, exuens. cuticulam per phyllas lineares: rami ascendentes, patentes. Folia distantius decussata, ascendentes, rigida, sessilia, angusta, lanceolata, uncilia, subtus convexa viridia saturatius at parce punctata, supra concava glauca sine punctis. Flores pro genere majusculi, ramulos aliquot novellos sparsos cum ipsis simul et raro defoliato ligno inferiis in caule cnotos in spicam nudam infra folia ambientes: filamenta coccinea, subcespitosa.

A species made known in the second edition of the Hortus Kewensis by Mr. Brown, who discovered it growing on the south coast of New Holland, and one which proves to be the most ornamental of any MELALEUCA we possess in our collections.

The genus belongs to the Myrtle-tribe, and naturally joins to METROSIDEROS; but having the filaments united in separate parcels, and not, as in that genus, wholly distinct from each other, ranks in a different class of the artificial system of Linnæus.

Fulgens is a slender hard-wooded branching tall shrub, with a palish smooth bark, inclining to red in the young wood; in the old brown, with a cuticle which peels off in

long narrow stripes. The leaves are loosely decussated, each pair crossing the other at rather distant intervals: each leaf is directed upwards, is about an inch long, narrow, lanceolate, rigid, on the under side convex green and conspicuously dotted with dark glandular papillæ, the seats of an aromatic lymph, on the upper concave glaucous spotless, and without any trace of the nerve that traverses the middle length of the under. *Flowers* in naked spikes surrounding below the foliage some few branches, produced at the same time with themselves from the circumference of the stem. *Calyx* green, oblate, urceolate. *Stamens* an inch and half long, with scarlet filaments united for the length of the short reddish *corolla* in five distinct multifid shafts.

The plant belongs to the greenhouse department, and is rather tender. Thrives in a mixture of hazel-loam and peat-mould. Flowers early in the summer, and is very ornamental.

Introduced in 1803 by Mr. Peter Good.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, Parson's Green, Fulham.

a The corolla dissected vertically. *b* The pistil.

Note.—In the article *STYLEDIUM graminifolium*, vol. 1. fol. 90, second page, line 20, for “monadelphous” read “monopetalous.”



John J. Ridgway 170 Readilly May 1. 1890

TILLANDSIA xiphoides.

Buenos Ayres *Tillandsia* or *Air-plant*.

HEXANDRIA MONOGYNIA.

Nat. ord.) BROMELIÆ. Jussieu gen. 49.

Die. I. Germen superum.

TILLANDSIA. *Cal.* 3-partitus. *Cor.* longior, tripartita aut tubuloso-trifida. *Stam.* inā corollā inserta. *Caps.* obtusè 3-gona, 3-loc. polypyrina, seminibus papposis. *Folia vaginantia, plerumque radicalia*; flores in scapo aut caule spicati aut paniculati, singuli spathe. *Plantæ herbaceæ plurima parasiticæ, aliae Agavem, aliae Bromeliacum, aliae Aloëm habitu* mentientes. Id. loc. cit. 50.

T. xiphoides, corolla tubuloso-trifida, limbi tripetaloidis laciniis reflexo-obliquatis duplo brevioribus tubo gracili subincluso spathâ.

Folia radicalia, paucæ, plurifaria, patentia, ligulato-attenuata, nisi semunciam v. circù lata, subtriuncialia, canaliculato-carinata. Culmus sub5-uncialis, strictus, totus vaginatus, teres crassitudine pennæ scriptoriae, impressus internodiis utrinque sulco lato rotundo pro flore (v. ramo) nobiscum abortiente ad geniculos utrinque sito ab intra vaginam emittendo, terminatus spathâ bivalvi 1-florâ erexit; folia culmi cuncta spathacea, disticha, alterna, internodiis longiora, subfuscenscentia, striatula, glabra. Spatha foliis conclusa, 2 uncias cum dimidio longa, viridissima, æqualis, valvis involuto-conniventibus lanceolatis, posticè impressis caro laterum culmi simili. Flos sessilis, erectus, fragrans, albus. *Cal.* inodus, herbaceus, eigens, sesquiuncialis, foliolis lineari-attenuatis, tubum corollaceum involventibus. *Cor.* 4-uncialis v. parùm infra; tubus lineari-elongatus, rotundato-trigonus, subinclusus, crassitudine fere pennæ corvinæ; limbus 2sertus, tripelato-partitus, totus reflexus, lucinius obovato-oblongis, obliquatis vice rotundatis, crenulato erosis. *Stam.* brevèr exserta tubo; fil. phylr. 3, latitudine diametri capilli, basi dilata; anth. luteæ, sagittato-lineares, imo limbo recumbentes: pollen granulo-grumosum. Germ. triquetro-pyramidalatum, 3-loc.; loc. unoquoque ovulis numerosis replete: stylus continuus, longè exsuperans stamina; stigma subclavato-continuum, hinc canaliculatum, resinâ fuscâ indurata obductum, atque filiferum, educens filos plures arachnoideos elasticos tenaces ad antheras usque laxandos gyralim.

* A genus belonging to the small order of *Bromeliæ*, or Pine-Apple tribe; and differing from *PITCAIRNIA*, in having a completely superior germen.* Its numerous species are parasitic, growing upon the bare trunks and branches of trees, sometimes on the naked face of rocks. A fact which may serve to diminish the wonder of their vegetating for years when suspended elsewhere by a thread, and which has procured them the name of Air-plants, also applied to some Orchideous vegetables gifted with the same property.

Of the present singular species we have found no account. Its inflorescence, in this instance, consisted of a single sessile upright highly fragrant white flower, little less, when fully extended, than four inches long, issuing from a bivalved *spathe* wrapped round by the upper leaves of the short stem; at the two upper joints of which, in hollows on each side within the surrounding sheath, we perceived the rudiment of either a flower or branch. *Calyx* herbaceous, enclosed, an inch and half high; tube of the *corolla* slender, higher than the spathe; *limb* tripetaloid, segments obliquely reflectent, obovate-oblong, twice shorter than the tube, unevenly crenulated. But the strangest anomaly presents itself in the *stigma*, which is clavately elongated, channelled on one side, and coated by a brown hard substance like resin, from some small points in which issue several fine elastic tough threads, floating down in ringlets among the *anthers* that lie without the mouth of the tube below, and in which the *pollen* appeared to be moist, and gummously granulate. To such stigma we know of nothing analogous among vegetables. Have we been imposed upon by some extraneous substance or some casual excretion? We state the appearance with diffidence, even after the most scrupulous inspection, and shall scarcely feel secure till we meet the like in another sample.

Native of Buenos Ayres. Flowered in one of the hothouses at Castle Hill, the seat of Lord Fortescue, in Devonshire; from whence the specimen was received by Mr. Edwards in March last. The lower part was copied from an uncoloured drawing made by Lord Fortescue, who had the goodness to communicate it to Mr. Edwards for the purpose; the stem and flower having been sent up by the gardener without the root-leaves. Its only culture for five years past had been, in being suspended by a string in the hothouse.

a The bivalved spathe. *b* The 3-parted calyx. *c* The tube of the corolla and one segment of the limb. *d* A stamen. *e* The pistil.



PENÆA squamosa.

Scaly Penæa.

TETRAG. MONOGYNIA.

Nat. ord. PLANTÆ INCERTÆ SEDIS. Monopetalæ germine supero.
Jussieu gen. 419.

PENÆA. Cal. 2-phyllus. Cor. campanulata. Stylus 4-gonus
(v. filiformis.) Caps. 4-gona, 4-loc., 8-spermia. Willd. sp. 1. 626.
Fruticæ sempervirentes, rigentes.

P. squamosa, foliis rhombico-cuneiformibus cernosis. Lin. mant. 331.
Penæa squamosa. Linn. sp. pl. 1. 162. Thunb. prod. 30. Willd.
sp. pl. 1. 628. Hort. Kew. 3. in add. 485. Ed. 2. 1. 248.
Penæa tetragona. Berg. cap. 36, (synonymon certum, etsi nusquam
aliubi usursum).

Prutex rigidus, proliferus; caulis rotundatus, cicatricibus tumidis scaber; rami foliosi tetraquatri, recens enati gummoso-unctuosi v. vernice diaphanâ obducti, scapius rubentes. Folia opposita, decussata, sessilia, patentissima, plana, duplo longiora intersticiis, semuncialia v. circinâ, crassa, rigida, rhombico-ovata acumine lato brevi, pruinata papillâ atomoides, opaca, nervo medio depresso, stipulata squamulis 4? parvis dentiformibus badiis, gummi limpido immersis, transeuntibus faciem supinam baseos folii ab extra utroque latere. Flores 2-5, terminalis, aggregati, arctati, scapius 5 in quincuncem ordinati, involucrati bracteis foliaceis, imbricato-conviventibus, pallido-virentibus, cuneatis, convoluto-concavis, gummoso-unctuosis, supernè ciliatis, acumine recurvo, majoribus quam folia. Cor. subsesquiuinalis, tubulosa, 4-fida, stricta; tubus obtuse 4-gonus, pallidus, diametro penne corvinæ majore; limbus 4-partitus, cruciatus, aequalis, patens, reflexus, roseo-lucens, laciniis ovato-ellipticis, obtusis. Stam. limbo aequalia, ore tubi posita, laciniis alterna, erecta, robusta, papillosa; fil. latius ligulata, concava, dorso convexa, sanguinea; anth. sublongiores, lanceolato-oblongæ, integrerimæ, adnatæ receptaculo distincto verticali crassiusculo roseo, extorsum carinato, introrsum piano loculigero atque supra basin infra loculos incumbente apice filamenti; loculi 2 breviores areolâ receptaculi, lineares, verticales, contigui, nigrantes, versus stigma dehiscentes fissurâ mediâ longitudinâ; pollen è globulis minutissimis granulatum. Pist. aequans stamina; stylus filiformis, gracilis, rectus, ruber; stig. atro-sanguineum, capitata 4-gonum, obsoletè 4-lobum, glabrum, nudiidum.

A scarce and remarkable plant; native of the Cape of Good Hope, and belonging to a genus of so distinct a nature from that of the others of any known tribe, that the points by which it connects in affinity with the general scheme of vegetables are yet to be determined. In Jussieu's arrangement it stands in the reserve of unplaced genera, such as await either until the species wanting to combine

them with the general plan shall be discovered, or until relations not yet developed shall be unfolded in those already known.

The name has been adopted by Linnæus in commemoration of Peter Peua, the coadjutor of De Lobel, in the work entitled "*Stirpium adversaria nova*," published in 1751.

A low rigid shrub, of rather straggling growth, stem proliferous, prominently scarred; branches leafy, young ones glazed with a transparent gum-like varnish, which hardens and becomes opaque in the old. Leaves decussated, horizontal, flat, thick, rigid, twice as long as the intervals, obovate, rhomboidal, broadly pointed, of an opaque green; stipules 4? minute brown, pointed, immersed in the varnish which covers the branch, and forming a brown ridge which traverses the upper face of the foot of the leaf from without the sides. Flowers 2-5, terminal, aggregate, most commonly 5 standing in the order of a quincunx, and forming a close oblong fascicle, enveloped by foliaceous imbricated bracts larger than the leaves, pale green, varnished, ciliate upwards, with a recurved point. Corolla an inch or more in length; tube obtusely quadrangular; limb 4-parted, cruciate, of a deep glossy rose-colour, three times shorter than the tube, obtuse. Stamens equal to the limb, blood-red, upright; anthers upright, inserted at the inner flat front of their receptacle nearly one third above the base under the cells, which are adnate, vertical, parallel, contiguous, dark brown, somewhat shorter than the plain of the receptacle, opening lengthways towards the stigma, against which they incline on parting with the pollen.

A greenhouse plant, difficult to preserve, and not easily multiplied. Cultivated in a mixture of hazel loam and peat mould. Introduced by Mr. Masson in 1787.

The drawing was made in March, at the nursery of Messrs. Lee and Kennedy, Hammersmith, a source from which we have long received a most liberal and unreserved supply of rare plants of the greatest use to our botanical pursuits.

a Corolla dissected vertically. b Pistil.



OTHONNA abrotanifolia.

Southernwood-leaved African Ragwort.

SYNGENESIA POLYGYRIA NECESSARIA.

• *nat. ord. CORYMBIFERÆ. Jussieu gen. 177.*• *Div. 1. Receptaculum nudum. Semen papposum. Flores radiati.*

OTHONNA. Flores radiati, flosculis masculis (androgynis sterilibus) ligulis foemineis. Cal. 1-phyllus subcylindricus aut patens, apice 8-14-dentatus aut 8-14-fidus. Pappus pilosus aut subnudus. Receptaculum quandam (alveolato-) villosum. Species quadam suffruticosæ, folia simplicia aut pinnata. Id. loc. cit. 180, 181, 182.

• *Div. foliis inctis pinnatis.*

O. abrotanifolia, foliis multifido-pinnatis linearibus, caulis gesticulis villosis. Linn. sp. pl. 2. 1310.

Othonna abrotanifolia. Mill. dict. ed. 8. n. 4. Thunb. prod. 168.

*Hort. Kew. 3. 277. ed. 2. 5. 176. Willd. sp. pl. 3. 2975; (excl. synon. *Seb. mus. quod O. pectinatae.*)*

Cineraria abrotanifolia. Berg. cap. 292.

Jacobæa africana frutescens, foliis abrotani s. crithmi, major et minor. Volkam. norib. 225. t. 225.

(β) foliis laxioribus, brevioribus, pinnis latioribus, planioribus. Ex specim. in Herb. Banks.

Asteroplatycarpos africana frutescens, crithmi marini foliis. Comm. hort. 2. 63. t. 32.

Suffrutex proliferus; rami ascendentes, teretes, undique confertim foliati, gremio folioso apicis (undè pedunculus) densè lanati. Folia saturatè viridia, sparsa, multifaria, conferta et basi imbricato-approximata, patentia, carnosa, crassa, lineari-pinnata cum impari, glabra, foliolis decurrentibus, distantibus, alternis v. oppositis, filiformibus, acutis cum sulco supra; petiolus communis foliolis similis sublatior tamen et utrinque sulcatus. Pedunculi terminales, solitarii, erecti, teretes, glabri, 1-3-unciales, 1-flori. Flos saturatus sulphureo-lutescens, sesquipediam ad 2 uncias transversus v. magis. Cal. herbaccus, ex globoso-cylindrico patens, medium ultra multi-(13-) fidus, æqualis, acutus. Radius recurvo-expansus, ligulis totidem ac segmentia calyci, laminæ linearis-oblonga, tridenticulata, longitudine disci transversi, revoluto-emarginata, tubo græcili deorsum ampliato: discus numerosus, æqualis calyci, flosculorum limbo urceolato-campanato, semiærido, lacinias ovato-acuminatis; tubo ligularum simili. Anth. 5-dentata, æquans limbum, flava. Stigmata 2, revoluto-divergentia. Germ. pappo pluriæ brevias, cylindricum, oblongum pappus copiosissimus, sericeus sub lente plumosus, sursum et deorsum diffusus, mollissimus. Recept. alveolato-scleratum, alveolis membranoso-marginatis, setoso-dentatis, à profundis in periphæriâ leviter dentibus versus centrum.

A suffrutescent species, much cultivated in the greenhouses about London, on account of its early flowering, easy culture and propagation. A narrow foliage clothes the branches to the top, in the manner of that of the common Southernwood, which it resembles in form; each leaf is from an inch to an inch and half long, fleshy, unequally linear-pinnate; *petiole* furrowed above and beneath; *leaflets* decurrent, 11-13, filiform, pointed, furrowed above only, generally opposite or nearly so; sometimes alternate, lowermost very small, three uppermost placed tridentwise. *Stem* round, proliferous; branches upright, producing a solitary smooth round one-flowered bracteless *peduncle* from an apex tufted with thick white wool, forming the centre of the terminal leaves. *Flowers* of a uniform pale golden yellow, from an inch and half to two over. *Receptacle* alveolate or honeycombed, edge of the cells membranous, with fine bristle-like teeth, gradually higher as the depth of the cells diminishes towards the centre.

In bloom from January to March. Native of the Cape of Good Hope. Cultivated at Hampton Court Gardens in 1692.

We are acquainted with two varieties: the one with a broader flatter foliage we take to be Commelin's plant. The present is that of Volckamer, whose figure of it, tho' coarse, is very characteristic. Samples of both are preserved in the Banksian Herbarium.

The drawing was made at Messrs. Colville's nursery, King's Road, Chelsea.

a Calyx, dissected vertically, showing the bristly-alveolated receptacle, deprived of the florets. *b* A floret of the disk and germen. *c* A floret of the ray and germen.

110.



110. 5
L. L. Parry May 1, 1911

South - Scarf

CACALIA bicolor.

Bicolor Cacalia.

SYNGENESIA POLYGAMIA AEQUALIS.

Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177.
CACALIA. Suprà fol. 101.Div. *Herbaceæ.**C. bicolor*, caule herbaceo ramoso, foliis lanceolatis glauis dentatis: caulinis (superioribus) amplexicaulibus; rameis (inferioribus) petiolatis. Willd. sp. pl. 3. 1731.

Cacalia bicolor. Roxburgh MSS. corom. cum tab. pict. ined. Salisb. parvifl. 25. Hart. Kew. ed. 2. 4. 499.

Perennis, bipedalis: caulis ramosus, glaber, striatus, fusco-purpureascens, subrufosus, erecto-patentes, florigeri. Folia decrescentia, glabriuscula, saltus, ferè semper lète purpurea; inferiora petiolata, lanceolata, laxius nec maliter inciso-serrata, summa ramis supposita amplexicaulia sublyrata, striata. Pedunculi caulis ramorumque terminales, rari, distantes, fastigiantes, villosusculi, striati, uniflori, consuti bracteis nonnullis vagis membranis subulatis, summo calyci contiguis patentissimis. Flores puniceo erucati, ferè unciam alti. Cal. cylindricus, oblongus, apicibus purpureis rotatis. Flosculi numerosi, excedentes calycem, subnudantes v. curvuli versus apicem florae. Stigmata divaricato-exserta. Cætera ferme ac in *C. ovali* foliis satis eorū 101.

This fine coloured species, according to Dr. Roxburgh, was received at the botanic garden in Calcutta, from the Mysoreans, in 1790; and was introduced by Sir Joseph Banks into this country in 1799.

An herbaceous perennial plant, in our specimen about two feet high; stem dark-purple, somewhat angular, smooth, branched. Leaves scarcely succulent, usually of a fine bright purple at the under side, nearly smooth, or with a slight scattered pubescence on the middle nerve; lower ones petiolate, lanceolate, deeply distantly and unequally serrate; upper stem clasping, lyrate-sagittate. Flowers between crimson and orange colour, nearly an inch long, terminating the stem and branches in a loose few-flowered panicle; peduncles distant, striate, somewhat villosus, growing out into a loosely scattered corymb, beset with a few irregular distant subulate membranous bracts, the upper ones of which are patent, and surround the base

of the calyx to which they are contiguous. *Calyx cylindrical, oblong, with purple points. Florets numerous, overtopping the calyx, bending towards the periphery of the flower. Stigmas divaricately protruded.* In the other points it agrees very nearly with *CAFALIA ovilis* recorded in the 101st article of this work..

Requires to be cultivated in the hothouse, where it flowers in the autumn.

The drawing was made at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham. It had been raised from East Indian seed.

a The calyx and bracts dissected vertically; showing the receptacle bared of the florets, *b* A floret and its germen.

Note.—Fol. 99. p. 1, bottom line. For “Clusius notices its having been,” &c. read “Clusius notices it as having been,” &c.





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CHELONE barbata.

Scarlet Chelone.

DIDYNAMIA ANGIOSPERMIA.

*Nat. ord. BIGNONIE. Jussieu gen. 137.**Div. I. Fructus capsularis bivalvis. Caulis herbaceus.*

CHELONE. Cul. 5-partitus 3-bracteatus. Cor. basi tubulosa, ice inflata, limbo bilabiata, superius emarginata, inferius 3-fida. Filamentum quintum sterile, cæteris brevius. Stylus 1. Stig. 1. Caps. pera, ovata, 2-loc. 2-valv. polysperma, valvis medio septiferis, re-staculo centrali valvularum septis applicito; semina numerosa margine membranacea. Herba basi lignosa, oppositifolia, flores dense spicati minules. Character ex C. glabrâ. Jussieu gen. 137.

barbata, labio inferiore corollæ barbato, fauce hiante, foliis integrerimis: radicalibus petiolatis, spathulato-lanceolatis, caulinis sessilibus, lanceolatis, floribus pendulis paniculatis. *Mænch suppl. meth. pl. 167.*

Chelone barbata. Cavan. ic. 3. 22. t. 242. Willd. sp. pl. 3. 226.

Hort. Kew. ed. 2. 4. 7.

Chelone formosa. Wendl. bot. beobacht. 51. Thompson's bot. displ. 4.

Ruellioideæ. Andrew's reposit. 34.

Herba perennis, lactescens; radix fibrosa, rhizomate fermè suffrutescente, viso; caules plures, teretes, erecti, glabri, glaucescentes ac tota planta, 5-pedales simplices. Folia opposita, patentia, caulinis distantia, decrescentia evadant summa floralia non nisi bracteolæ subulatae; radiealia 8 uncias è longa latitudine modò unius. Panicula caulis continua, longa, distans, ecta, oppositè florigera, inferius subfoliacea; flores cernui, pedunculis solitariis, erectiunculis, axillaribus dichotomo-bifloris, rariùs 1 floris; bracteola b singulo pedicello, imis corollâ longioribus. Cul. parvus, ebracteatus, herceus, connivens, acutus, persistens. Cor. miniato-fulgens, tubuloso-elongata, bsesquicirculata, suprà ventricosior; limbus semiringens, brevis, labio superiore perrecto, obtuso; inferiore deflexo, intus flavo-harbato. Fil. glabra, in tube accreta, summa duo basi bulboso-incrassata; anth. didymæ, lobis riticali-divaricatis. Germ. pyramidatum; stylus filiformis; stigma obsum.

A perennial herbaceous species, tolerably hardy and very ornamental. Native of Mexico. Introduced in 1794 by Sir Joseph Banks, and now become very general in our gardens.

It may be said to be suffrutescent, as the caudex, or upper continuation of the rootstock, never dies completely down to the ground. The whole plant, except the bloom, is smooth, glaucous, and lactescent; leaves op-

posite, decrescent, *lowermost* from six to eight inches, or more, in length, scarcely ever one in breadth, spatulately lanceolate, petioled, rear; *uppermost* distant, linearly lanceolate, sessile. *Panicle* terminal, upright, tall, slightly pyramidal, opposite-flowed, distant, subfoliaceous till the leaves gradually diminish to bracts; *peduncles* axillary, solitary, upright, slightly divergent, dichotomously two-flowered, with a small *bracte* under each short pedicel, decrescent, lowermost longer than the flower, which seldom exceeds an inch and a half. *Calyx* small, green, 5-parted, campanulate, acute, bracteless. *Corolla* of a red between vermillion and salmon-colour, deeper and shining along the upper side, elongatedly tubular; faux dilated, somewhat flattened at the upper side, three times longer than its diameter or more; limb semiringent, short, upper lip straight, obtuse, notched, lower tripartite, deflected, bearded, hairs yellow. *Filaments* cemented to the lowermost part of the tube, two uppermost having bulbously enlarged pediments; the fifth antherless and smooth, placed between the uppermost pair. In *PENSTEMON* the barren stamen has a shaggy pubescence extended along the upper side, something in the way of a mane, which constitutes a principal mark of distinction between that genus and the present, which were formerly considered as one.

Requires to be kept in a warm dry sheltered situation, where it will flower throughout the greater portion of the summer and autumn. Propagated by parting the root, and by cuttings, or slips.

The drawing was made from a plant Mr. N. S. Hodson had the kindness to send to Mr. Edwards, from his collection at South Lambeth.

a Calyx. *b* Corolla dissected vertically. *c* Pistil.



OXALIS flava.

Narrow finger-leaved Cape Wood-sorrel.

DECANDRIA PENTAGYNYIA.

Nat. Ord. GERANIA. Jussieu gen. 269.

Div. Genera Geraniis affinia.

OXALIS. Cal. 5-partitus, persistens. Pet. 5, hypogyna, latere leviter connexa. Stam. hypogyna, filamentis basi coalitis, alternis brevioribus; anth. subrotundæ. Germ. simplex. (Styli filiformes. Stigmata obtusa.) Caps. brevis aut oblonga, 5-gona 5-loc. loculis mono- aut poly- spermis, 5-valv. valvis introflexis & receptaculo centrali affixis, singulis loculum constitutis & extus elasticè bipartitis; semina compressa transversè multistriata arillata, receptaculo annexa. Herbae quædam radice tuberosa, caulescentes aut scapoæ; folia confertim alterna, ternata aut rariùs abruptè pinnata, petiolo basi dilatato (stipulaceo?), juniora Filicum more in spiram involuta; pedunculi in scaphis terminales, in caulinis axillares aut et terminales, nunc 1-flori medio bisquamulosi, nunc umbellatim multiflori umbellatæ subinvolucratæ. Seminis minimi embryo videtur rectum absque albumine. Genus à GERANIIS distinctum stylis pluribus, capsula formâ et dehiscendi modo, embryo recto, albuminis defectu: an TRIBULO aut ZYGOPHYLLO affinius? Jussieu gen. 270.

O. flava, acaulis, scapo 1-floro foliorum longitudine, foliis digitatis lineâribus canaliculatis acutis, stylis staminibus exterioribus brevioribus. Willd. sp. pl. 2. 804.

Oxalis flava. Lim. sp. pl. 1. 621. Thunb. diss. de Oxal. n. 24. 23. Prod. 83. Jacq. Oxal. 20. n. 93. 116. t. 73. Hort. Kew. 2. 115. ed. 2. 3. 131.

O. bulbosa angustis digitatis foliis, flore solitario luteo. Burm. afr. 68. t. 27. f. 4.

Bulbus oratus, tunica fuscâ subnucamentacea, nucleo amygdalino-carnoso. Caudex squamosus, plus minus exsertus. Folia confertim terminalia, plus minus 5, digitata, glabra. Petioli basi articulati, crassi, compressuli, firmi, 1-2-uncigiles. Foliola 5-9, sessilia, ligulato-linearia, subattenuata deorsum, ex complicatis canaliculatis vel planè explicanda, obtusa cune minuto acuminulo, integririma, subtilissimè punctata sublùs pallidiora, 2 linea plus minus lata, 1-2 uncias longa. Pedunculi plures, 1-flori, basi articulati, subsemiteretes, glabri, statu râ ferè petiolorum, superne bracteolis 2 subalteris. Calycis foliola lancolata (obtusa), erecta, apicibus patula. Cor. triplo v. magis longior, flava; laminæ laciniarum, rotundatae, amplæ, integræ, latore exteriore dorso rubentes. Fil. basi ovali, interiora denticulata, aequigia, pilis capitatis brevissimis rariis aspera cum denticulis glabris; exteriora pilis capitatis hirsuta. Anth. oblongæ, incubentes, flavæ. Germ. ovalo-oblongum, 5-sulcatum, glabri, pallens. Styli brevissimi, subbus capitulo hirsutuli, exterum glabri. L scriptio à diffusore Jaquini desumpta.

The place of this genus in a natural system does not seem to be finally determined. By Professor de Jussieu it has been provisionally enrolled in his order of *Gerania* or *Geranium*-tribe. Some species of it are to be found in each of the four quarters of the globe; but of rather more than a hundred that are already recorded, about ninety are natives of the Cape of Good Hope. The present is from thence, and was introduced by Mr. F. Masson in 1775.

Bulb about the size of a filbert, ovate, consisting of a crustaceous membranous covering, and a white kernel of the consistence of an almond. *Stem* more or less elevated above the ground, scaly. *Leaves* 5 or more, terminal, digitate, smooth; *petioles* 1-2 inches long, thick, compressed; *leaflets* 5-9, linear-ligulate, each at first folded separately, then expanded, obtuse with a small point, minutely dotted, paler at the under side, 1-2 inches long, about two lines broad. *Peduncles* several, nearly of the stature of the petioles, jointed at the base, one-flowered, having two small bractes placed alternately near its top. *Corolla* deep yellow. *Filaments* connected at the base, *inner ones* denticulate, sprinkled with short capitate hairs, from which the small teeth are free: *outer ones* thickly covered by the same kind of pubescence as the inner. *Styles* very short, pubescent underneath, smooth above. When the leaflets are closed the foliage has a very distinct appearance from that which it has when these unfold.

A greenhouse plant, cultivated in small pots filled with a mixture of peat-mould and hazel loam. The drawing was taken this spring at Mr. Creswell's conservatory in Battersea Square.

a Calyx. *b* Stamens and styles, when removed from the corolla. *c* The pistil. *d* A long and a short stamen.



CYTISUS proliferus.

Silky Cytisus.

PHILADELPHIA DECANTRIA.

• *Nat. ord. LEGUMINOSÆ. Jussieu gen. 352.*
 • *Div. V. Corolla irregularis papilionacea. Legumen 1-loc., 2-valv.*
Fruticæ aut herbae; folia simplicia aut ternata aut rariùs digitata;
stipulae nunc subnudæ, nunc conspicuae imo petiolo adnatæ aut ab eodem
distinctæ.

CYTISUS. *Cal. subbilabiatus suprà bidentatus & infrà tridentatus;*
nunc brevis campanulatus, nunc longior cylindricus. Corollæ vexillum
reflexum; alæ et carina simplex conniventes suprà stamna. Stig. sim-
plex. Legum. oblongum compressum polyspermum. Fruticæ aut
suffruticæ inermes, rariùs arbusculæ; folia ternata; stipulae subnudæ
aut minima; flores terminales aut axillares, solitarii aut rariùs spicati,
plerumque lutei. Id. loc. cit. 354.

C. proliferus, floribus umbellatis lateralibus, caulis erectis, foliis el-
 lipticis erectis subtus sericeis, calycibus lanatis. *Hort. Kew. 3. 51.*

Cytisus proliferus. *Linn. suppl. 328. Venten. cels. 13. Willd. sp. pl.*
3. 1126. Hort. Kew. ed. 2. 4. 322. Lamarck encyc. 2. 248.

Scobon. *Teneriff.*

Frutex vimineus, elatior, sempervirens, pubescens. Rami longi teretes,
 hirsutiùs villosi, canescentes, patentes, flexiles, foliati, racemoso-ramulosi, ra-
 mulis ~~numeriosis~~, axillaribus, solitariis, brevibus, umbelliferis. Folia nume-
 rosa, sparsa, petiolata, ternata; foliola lanceolato-ovalia, mucronata, appressæ
 villosa, subtus sericeo-albicantia, petiolo duplo maxime longiora. Umbella
 4-8-flora è gemmâ communi solitaria, terminali, pedicellis 1-floris, verticillatè
 positis, à partes uncia longis, filiformibus, villosis, bracteolam linearem im-
 labio calycis adpressam gerentibus. Peracta florescentia brevis ramulus excres-
 cere pergit è centro pedicellorum in longum ramum, ita ut fructus maturus
 evadat infernus in eo. Flores nutantes, pedicellis aquales, inodori. Cal.
 lanatus, cylindricus, labiis cœquifinis, summo bidentato-exciso, ino integerrimo
 lanceolato-naviculari. Cor. major, alba, vergens dein in ochroleucam, externe
 lanuginosa; vexillum ovalo-rotundum, emarginatum, reflectens, lateribus
 pone dorsum conniventibus; alæ huic isometræ, duplo angustiores, supra
 cannam convergentes à latere suo interiori, margine corrugatæ; carina parum
 brevior, compressa, obtusula, petalis superne cohærentibus. Stam. monadel-
 pha, æqualia; anth. aur. stigæ. Germ. lineare, compressum, sericeo-hirsutum,
 stylo filiformi parùm brevius; stigma punctum vix tumidum, puberu-
 lum.

This fine evergreen shrub is native of the Canary Islands,
 from whence it was introduced by Mr. Masson in 1779. In
 the Island of Teneriffe, where it is found on the mountains,
 it is known by the name of *Scobon*. With us it requires to

be kept in the greenhouse, and will grow to a considerable height, producing a stem an inch in diameter. We have seen the long branches bending with a profusion of flowerbearing branchlets (from which it derives its specific title) scattered on all sides of them for the length of more than two feet.

The whole plant is pubescent, and has a soft silvery appearance when in full bloom. *Branches* round, long, flexible, leafy, racemously branchleted, branchlets numerous, axillary, umbelliferous, solitary, short. *Leaves* numerous, scattered, petioled, ternate; *leaflets* lanceolately oval, mucronate, silky, thinly so and green above, beneath thickly so and white, twice the length or more of the petiole. *Umbels* 4-8-flowered issuing from a bud at the end of the branchlets; pedicles verticillate, one-flowered, about three fourths of an inch long, filiform, flexible, hairy, with a linear bracteole pressed against the lower lip of the calyx. As the flowers fade the branchlet begins to extend itself rapidly from the centre of the umbel, so that by the time the fruit is ripe, that has the appearance of belonging to a blossom which had been produced at the bottom instead of the summit of the branchlet. *Flowers* inclining forwards, about the length of their pedicles, scentless. *Calyx* woolly, cylindrical, *lips* equal, upper one notched, lower entire navicular. *Corolla* largish, white, tending to cream-colour, downy on the outside; *vexillum* or standard ovately round, notched, reflectent, with sides that meet together behind its back; *alæ* or wings as long as the vexillum, but twice as narrow, converging over the carina, wrinkled at the edge; *carina* or boat but little shorter, compressed, obtuse, with the two petals cemented together upwards. *Stamens* monadelphous, grown together into a membranous tube; not diadelphous and consisting of two sets, the one nine-stamened, the other single, as is more usual in the genus. *Antlers* of an orange-yellow. *Germer* linear, compressed with a long silky pubescence; *style*, filiform; *stigma* a scarcely enlarged point.

Drawn in April, at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Fulham.

a Calyx. *b* One of the two alæ or wings. *c* The carina or boat. *e* The ten tubularly monadelphous stamens. *f* The pistil or germen, style, and stigma.



ARCTOTIS acaulis.

Dwarf Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

*Nat. ord. CORYMBIFERÆ. Jussieu gen. 177. •**Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores sæpius radiati.**ARCTOTIS. Suprà vol. 1. fol. 32.*

A. acaulis, pedunculis radicalibus foliis lyratis. *Linn. sp. pl. 2. 1306.*
Arctotis acaulis. *Hort. Kew. 3. 274. ed. 2. 5. 169. Trew ehret. 53. t. 93. Willd. sp. pl. 3. 2348; (excluso Jacq. hort. schænb. 2. 16. t. 158).*

Anemonospermus Africana foliis plantaginis flore sulphureo. *Comp. rar. 95. t. 35.*

(?) foliis longè lyratis acutè dentatis.

Arctotis speciosa. *Jacq. hort. Schænb. 2. 18. t. 161. Willd. sp. pl. 3. 2350; (exclusa A. grandiflora. Hort. Kew.).*

A. acaulis. *Mill. dict. 8. n. 6; (ex specimine archetypo in Herb. Banks.).*

Radix rhizoma descendens perenne. Folia plurima, radicalia, ambientia, erecto-recumbentia, lyrata, 4-6-uncialia, crassiuscula, remotius mucronata-vel subspinulosa- denticulata, suprà dense et asperiùs villosa virentiaque, infrà tomentosa-candicantia et varicoso-nervosa, lobis lateralibus oblongis subdissimilis, terminali magno ovato subduplicato-dentalo v. inciso-dentato. Pedunculi plures, radicantes, aequantes folia v. plurimum longiores, uniflori, teretes, robusti, striati, fistulosi, villis pilis puncticantibus intcrspersis hirsuti, modò bractea linearis, raro et folio in axilla gerente pedunculum alterum, stipati. Flores plus quam duas uncias transversi, radio intus lutescentes cum basi atro-purpurea, extus punicantes, disco nigricantes, revoluto-emarcescentes. Calycis squamae extiores arachnoideo-lanatae, fuscantes, subulato-appendiculatae, partim reflexæ partim appressæ, interiores erectæ, glabrae, lamina obovata scariosa margine sphacelato-punicante. Cætera ferme ac in ARCTOTIDE aureola N° superioris 32, sed pappum habet paleaceum in simplici serie, nec dupli ac in eâ.

A dwarf perennial species from the Cape of Good Hope; cultivated in our collections before 1759. The bloom is produced in succession from April to June, or longer; and requires a warm sunshiny situation to expand in perfection.

Leaves several, sometimes many, radical, ambient, inner upright, outer recumbent, 4-6 inches long, lyrate, thickened, surrounded by loosely set small mucronate teeth, green above and thickly covered by a rough longish pile, which feels like plush, beneath tomentose white and vari-

cosely nerved; lateral lobes oblong, somewhat ascendent, not uniform; terminal one large, ovate, doubly and sometimes sinuately indented. *Peduncles* several, sometimes many, radical, equal to or nearly twice the length of the foliage, one-flowered, round, thick, striate, piped, roughened by a close partly purple-coloured longish pile, sometimes with a linear bracte at some distance below the flower, now and then with a leaf near the base, from the angle of which another peduncle is produced. *Flower* exceeding two inches in diameter; ray yellow within, puce-coloured red without, rolling outwards as it decays, disk nearly black. Outer scales of the calyx araneously pubescent, terminated by a longish narrow subulate shaft, part of them reflectent, part pressed to the inner. In respect to the other parts of the flower; they resemble nearly those of *Arctotis aureola*, of the 32d article of this work, except that the paleaceous pappus of the seed is of one, not of two ranks, as in that.

A hardy greenhouse plant. Propagated by dividing the root.

The drawing was made at the nursery of Messrs. Lee and Kennedy at Hammersmith.

a A floret of the ray. *b* A sterile floret of the disk. *c* A vertical section of calyx and receptacle.



24. 1880. 1000.

Libby's Botanica 190. Recumbens July 1. 1880.

NARCISSUS montanus.
White Mountain Daffodil.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54.

Div. II. Germen inferum.

AMARYLLIDÆ. Brown. prod. 296.

Sect. I. Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

NARCISSUS. *Inflor.* pedunculata, uni-multiflora, umbellata, terminatrix scapi; *spatha* inaequalissimè bivalvis valvâ exteriore folliculari. *Cal. O.* *Cor.* regularis, infrâ tubulosa, suprà sexfida rotato-v. radiato-explanata, *coronâ* campanulatâ parietis internæ tubi continua. *Stam.* tubo diversimodè adnata, alternè longiora v. æqualia, inclusa coronâ, erecta, rariùs inclinata. *Stylus* 1, coronam æquans v. exsertus: *stigma* 1° subtrilobo-obtusum & hians, v. 3 brevia. *Caps.* 3-loc., 3-valv., polysperma, valvis medio septigeris: *sem.* biseriata, plura, globosa modò variè pressa.

Bulbus tunicatus, involutus indusiis membranaceis. Folia 1-2-plura, bifaria, carnosâ, lorata atque planiusula, v. canaliculato-semiteretia, modò teretia et juncea. *Scapus centralis.* Flores variè albicantes aut flavicantes raro virentes. *Valva interna spathæ inclusa angustissima,* modòque rix conspicua. *Differt PANCRATIO coronâ non connectente stamina extra tubum.*

N. montanus, subuniflorus; germinie exsuperante spatham; corolla cernua dein nutante, limbo subrecurvo duplo excedente coronam cyathiformem; staminibus æqualibus foliis planis.

Queltia poculigera. *Salisb. in trans. hort. soc. 1. 352.*

Narcissus totus albus maximus, calyce mediocri serotinus. *Barrel. 67.*
u. 711. t. 948.

N. montanus sive Nompaireille totus albus. *Park. par. t. 71. fig. 6.*

Folia subquaterna, lorato-elongata, glauca. *Scapus istis subæqualis, compresso-teres, margine duplici.* *Spatha sphacelata, æquans pedunculum uncialeum v. magis, tubo 2-3-plo longiorcm, crectum.* *Flos cernuus, totus quantus albidus, subbiuncialis, odorus.* Germ. oblongum, trisulcum, haud multum brevius tubo. *Tubus virens, cylindricus diametro ferè germinis, & brevior limbo.* *Limbus stellatus, subrecurvatus, parum inæqualis: corona plicato-striata, crenulato-crosa; stam. in situ os tubi inserta, inclusa coronâ, omnia exserta tubo, conniventia; anth. linearis flavæ.* *Stig. obsoletè trilobo-obtusum, apertum.*

The second section of the *Narcissi* of Jussieu has been converted by Mr. Brown into a separate order under the title of *AMARYLLIDÆ*. The genuine affinity of its genera is remarked in one of those summaries by which M^ode Jussieu

concludes and reviews each of his orders in succession; and in which perhaps are to be found the brightest displays of the sagacity which so eminently distinguishes him.

The difference between **NARCISSUS** and **PANCRATIUM** lies in the crown of the corolla; this in the former does not coalesce with the stamens above the mouth of the tube, while on the latter it is connected with them for its whole length or nearly so.

Notwithstanding the present species has been cultivated and described by Parkinson before 1629; yet we do not find it recorded, nor its figure or description even quoted as a synonym to a plant, in any general system of vegetables. It comes the nearest to **NARCISSUS incomparabilis**; but differs from that in having a flowerstalk two or three times longer than the tube of the corolla, and fully equal to the spathe, not two or three times shorter; in having a germen above, not enclosed within the spathe; a smaller flower of one colour, and on emersion from the spathe completely cernuous, oblong-lanceolate segments, a proportionately shorter crown less conspicuously plaited and curled. *Leaves* generally four, lorately elongated, flattened, glaucous. *Stem* about equal to these, round, compressed, subancipital. *Flower* generally but one, white, about two inches deep, odorous, diverging after complete expansion from the stem. *Tube* nearly of the diameter of the germen, green, two or three times shorter than the peduncle. *Limb* partly recurved, nearly equal. *Crown* plaitedly-streaked, crenulately eroded. *Stamens* inserted below the mouth of the tube, but protruding beyond it, tho' not beyond the crown, connivent. *Anthers* linear, yellow. *Stigma* an obtuse obscurely 3-lobed hollow point.

Mr. Salisbury tells us that the species is found wild in the Pyrenees. He recommends the cultivating of it in a deep and moist soil. A very rare plant in our collections, nor had we ever seen it until the present specimen was kindly sent us by Mr. George Anderson, from his garden at West Ham, Essex, in April last. This gentleman has, we understand, the completest collection of the species of this genus of any one in England..



Pl. 1.9. 1. Redwing 170. Somadell July 1 1816

RIBES aureum.
Missouri Currant.

PENTANDRIA MONOGYNIA.

Nat. Ord. CACTI. Jussieu gen. 310.

Div. I. Petala et stamina definita.

RIBES. Cal. superus quinquefidus coloratus. Pet. 5, summo calyci inserta et alterna. Stam. eidem opposita, ibidemque inserta; anth. compressæ incubentes. Germ. simplex; stylus 1; stig. 2. Bacca globosa, umbilicata, 1-loc., polysperma, receptaculis 2 oppositis seminiferis. Frutices, alii inermes, alii spinosi spinis simplicibus aut partitis, quibus axillares gemmæ ramulorum squamosæ; folia alterna, in spinæ centibus pariter axillaria, petiolo basi dilatato semiamplexicauli in inermibus ciliato aut interdum ciliis rigidis spinuloso; pedunculi axillares aut è gemmis erumpentes, spinescentiū 1-3-flori, inermium racemoso-mutiflori; flores 1-bracteati, bacca esculentæ. Jussieu gen. 310.

Div. Ribesia, inermia.

R. aureum, inerme, glaberrimum; foliis 3-lobis: lobis divaricatis inciso-paudentatis petiolo basi ciliato brevioribus, racemis laxis densè multifloris, calycibus tubulatis pedicellis longioribus: tubo gracili: lacinia oblongis obtusis, petulis linearibus lacinia calycis duplo brevioribus, bracteis linearibus longitudine pedicellorum, baccis glabris. Pursh amer. sept. 1. 164.

Ribes flavum. Ad specim. nativum à Navarchis Lewis et Clarke ad caturatus Columbiæ fluvii (Aprili 1806) lectum in Herb. Dom. A. B. Lambert repositum.

(8) Foliis villosiusculis, pedunculis villosissimis.

Ribes longiflorum. Fraser's cat. (1813). Ad specim. plura spontanea lecta ad Missouri fluvium à D. Nuttall et in Louisianâ superiori à D. Bradbury in Herb. Dom. A. B. Lambert asservata.

Ramii teretes, ramuloso-frugiferi, fuscescentes epidermide in senescentibus desquamato-dehiscenti. Folia ambientia, oblata, ovato-triloba lobis apice inciso-depictatis, cæterum integerrima, nervosa, glabriuscula, omnino erugata, villoso-ciliolata, exteriora quædam margine dilatatae baseos petioli villosi pilosa; juniora atomis resinosis irrorata, adulta ad lentem albo-punctatis. Racemi è gemmis communibus solidarii, multiflori, erectiusculi, subbrunciales et supra, longiores foliis, infra medium nudi, supra thyrsoideo-floridi; pedunculo villosiusculo, strictiori, pedicellis 1-floris, flore 3-4-plo brevioribus, erectis, bracteis foliaceis gradatim decrescentibus solidariis interstinctis, cum germine constrictum articulatis. Flores aurei, gratae odori, erectiusculi, Germ. curvè cylindricum, subrotundum, laxe, virens nervis translucentibus. Cal. elongato-hypocrateriformis, glaberrimus, subuncialis, diametro scđe penne corvinæ, subarcuatus, segmentis duplo brevioribus tubo toto tereti, subæqualibus, cuneato-oblongis, apice rotundatis atque subinflexo-concavis. Cor. petala his duplo breviora, pallidius lutescentia supernè tandem roseo-rubentia, obovata, gland. erecta, collateralis-contigua, apice erosa. Stam. vix breviora, intervallis petalorum astanlia: anth. ovali-oblongæ, transversè compressæ à dorso affice.

*erectæ, margine externâ rubente loculorum dehiscentes; pollen ochroleucum.
Stigma viride, bifidum, æquale corollæ. Baccæ glabrae esculentæ.*

A native of North America, where it has been found in Upper Louisiana on the banks of the Missouri, by Messrs. Bradbury and Nuttall; also on the other side of the Rocky Mountains on the banks of the Columbia by Captains Lewis and Clarke, in the celebrated journey across the American continent to the Pacific sea, performed by those officers at the order of the government of the United States. In Mr. A. B. Lambert's Herbarium there are specimens from each of these quarters, which seem to differ in no other respect, than that some of those from the Atlantic side of the Rocky Mountains are more conspicuously pubescent, and with larger bractæ than those from the side next the Pacific. With us this pretty shrub has as yet no other value than that which arises from a colour and fragrance of blossom unlooked for in this genus; but in its native place it is highly prized for the excellence of the fruit, which is said to be larger than any of our more common garden sorts. The bush is perfectly hardy, and seems to thrive in almost any situation, blossoming freely about the middle of May; but no fruit has been obtained during the five years it has been known in our gardens, the flowers dropping off prematurely at the constricted joint below the germen. In size and manner of growth it resembles our common currants; but the foliage is considerably smaller, of a bright green, unwrinkled, indented only at the top of the three lobes into which it is divided, and in our specimen its surface on both sides was without pubescence, but the edge shortly ciliated. *Flower-bunches* numerous, scattered, solitary, produced as usual in the genus from a common bud with the foliage; *flowers* 10-20, quite smooth, nearly an inch long, of a bright golden yellow, disposed on the upper half of the *peduncle* in the form of a thyrze; *peduncle* villous, almost upright, *pedicels* 3-4 times shorter than the flower, separated by foliaceous entire gradually decreasing *bractæ*. *Cal.* tubular and slightly curved. *Petals* pale yellow, changing at the top to a bright pink-colour. *Stamens* equal to the petals. *Stigma* deep green, bifid.

Introduced by Mr. Nuttall. The drawing was made at Mr. Knight's nursery, in the King's Road, Chelsea.

a The flower dissected vertically.



Bot. 1909 Redrawn 1910. Pennington July 1. 1886

PINGUICULA lutea.
Yellow american Butterwort.

DIANDRIA MONOGYNIA.

Nat. Ord. LYSIMACHIAE. Jussieu gen. 95. Div. III. Genera
Lysimachiis affinia.

LENTIBULARIAE. Cal. divisus persistens. Cor. 1-petala, hypogyna, irregularis, calcarata, bilabiata. Stam. inclusa, inae corollæ inserta. Anth. simplices, nunc medio constrictæ. Germ. 1-loc. Stylus 1, brevissimus. Stigma bilabiatum. Caps. 1-loc., polysperma; placenta centrali magnâ. Sem. parva, exalbuminosa. Embryo nunc indivisus. Herba aquatica v. paludosæ. Brown prod. 429.

PINGUICULA. Cal. bilabiatus, supra trifidus, infra 2-lobus. Cor. irregularis, basi calcarata, fauce coarctata, limbo bilabiata, superius triloba, inferius biloba, brevior. Stam. brevissima. Stylus brevis; stigma bilamellatum, antheras tegens. Caps. receptaculo centrali libero. Folia radicalia pingua; scapus 1-florus; flos inversus. Jussieu gen. 98.

P. lutea, nectario subulato recurvo corollâ campanulatâ breviore, fauce barbatâ, labii dentatis, scapo subvillosa. Vahl enum. 1. 193.

Pinguicula lutea. Walt. carol. 63. Michaux bor. amer. 1. 11. Pursh amer. sept. 1. 14. Persoon syn. 1. 17.

P. campanulata. Lamurck in Journ. d'hist. nat. 1. 334. tab. 18. fig. 1; (de plantâ siccâ). Persoon syn. 1. 18.

Perennis. Folia radicalia, plurifaria, imbricato-ambientia, patentia, ovata, obtusa, vesiculis diaphanis conspersa, margine inflexâ, subuncialia. Scapi 2-3, filiformes, cretici, 2-7-unciales, pilis capitato-vistidis villosi. Cal. cano-virescens, pubescens, segmentis obtusis. Cor. sine macula flavescens, à uncia transversa obscurè bilabiata; tubus calyci æqualis, extus sub fauce impressus sulco, et cum calcare venis obsoletè purpureis pictus; limbus explanatus, lacinia subæqualibus, labii supremi (floris resupinatione infimi) duobus obcordatis, subangustioribus, profundè emarginatis, collaterali-conniventibus, infimi (supremi ab inverso flore) tribus æqualibus, cuneato-obcordatis, subquadricrenatis; palatum flavo-barbatum, de fauce penicillato-prominens: calcar corollâ 3-plo magisve brevius, subulatum, sub fauce decurvatum. Germ. oblate-rotundum, obliquum, vesicular-punctatum; stylus obsoletus; stigma subpetaloideum, transversum, labio antico majore oblate-obcordato sub anthesi super antheras revoluto, postico parallelo minimo erecto subovato. Stam. albida, collateralia, basi connexa et sub fronte resupinata germinis inserta, instar serè corniculorum divergentia; dein incurvatum assurgentia, duplo breviora calyci: fil. robusta, teretia; anth. peltato-adnatae, oblate-rotundæ, extrosum oblique, vertice foramine rotundo dehiscentes: pollen ochroleucum.

By Professor de Jussieu this genus had been appended to his order of Lysimachiae, not however as a genuine co-ordinate, but provisionally, until its relations were more

strictly ascertained. Since then it has been included by Monsieur Richard, in his order of *Lentibulariae* or Bladderwort-tribe, consisting of aquatic or marshy plants, the character of which has been still more recently defined by Mr. Brown.

The generic appellation of *Pinguicula* refers to the unctuous shining appearance of the foliage of the common European species; so do the English and French ones of *Butterwort* and *Grassette*.

Lutea is a native of North America, where it grows in the pine-barrens of Lower Carolina, and differs from its congeners by a yellow crenated corolla, with a tufted protruded palate. It has been now first introduced by Messrs. Colvilles, nurserymen in the King's Road, Chelsea, who flowered it last May in pots of bog-earth, placed in pans of water on the flue of their hothouse. The plants had been sent them by Mr. Nuttall, a very intelligent collector, now in America.

Root perennial. *Leaves* radical, multifarious, imbricately ambient, spreading, ovate obtuse, an inch or more in length, vesicularily speckled. *Scapes* from the root, 2-3, one-flowered, filiform, upright, 2-7 inches high, covered with short glandularly capitate hairs. *Calyx* green, with a greyish pubescence, segments blunt. *Corolla* about three fourths of an inch or more across, obsoletely bilabiate; *limb* flat, nearly equal, resupinate, the two segments of the *upper lip* (by the inversion of the flower become the *lower*) obcordate, rather narrower, deeply emarginate, converging at their inner margins, the three of the *lower* (by inversion the *upper*) cuneately obcordate, each crenated with about 4 incisions; *palate* bearded, deep yellow, protruded beyond the orifice of the tube of the corolla; *spur* 3 times or more shorter than the corolla, subulate, pointing downwards with a curve. *Stigma* subpetaloid, unequally bilabiate, placed transversely on the germen, and consisting of two flat laminar lobes, the lowermost and largest of which bends itself downwards, so as to lap over the two stamens inserted below the base of the germen in front, assuming an upright direction when the anthers have parted with the pollen; the upper lip or laminar lobe is several times smaller, parallel with the back of the larger. *Germen* unilocular, speckled with small whitish pustules.

a The back of the calyx. *b* The corolla removed from the calyx. *c* The same dissected thro' the spur or nectary, and showing the palate or upper side of the faux. *d* The two stamens, detached. *e* The pistil.



TULIPA cornuta.

Horned Tulip.

• HEXANDRIA MONOGYNIA.

*Nat. Ord. LILIA. Jussieu gen. 48. (Ex nobis nunc ~~ad~~ editiis**MELANTHACEIS Brown prod. 272 co-ordinanda.)*

TULIPA. Flores terminales, nudi, solitarii, cauli sessiles. *Cal. O.* Cor. infera, hexapetala, campanulato-patens, regularis, subaequalis, decidua. *Fil.* hypogyna, erecta, crassiùs subulata: *anth.* oblongæ, erecto-vibratiles. *Germ.* prismaticum. *Stigmata* apicibus compresso-compli-catis et variè reflexis valvarum germinis intùs adnata, canaliculata. *Caps.* oblonga, coriacea, 3-loc., 3-valv., valvis medio septigeris, septis margine interna utrinque seminiferis: *sem.* numerosa, biseriatim cumulata, plana, incrassato-marginata, infrorsum attenuata; *albumen* corneum.

Bulbus *solidus* *ovato-pyramidalis*, *indusio* *crustaceo* *v.* *scarioso-membranaceo* *tectus*, latere altero *obliquatae* *baseos* *radicans*; altero anno post *prolatum* *fructum* *enirus* *basi* *axeos* *rhizomatosæ* *propaginem* *similem* *frugiferam* *cum* *aliis* *sterilibus* *in* *toto* *periturus*. Folia *caulina*, *subbifaria*, 3-plura, *amplexicauli-vaginantia*, *carnosula*, *lineari-* *v.* *oblongo-lanceolata*. Caulis *subscapus*, *uniflorus*, *rariùs* *divisus*. Genus *confine* *MELANTHII* *nuperius* *in* *WURMBEAM* *et* *ORNITHOGLOSSUM* *distracti*.

T. cornuta, uniflora; corolla è fusiformi-campanulata patentissima, petalis longissimis, caudatis.

Tulipa cornuta. *Redouté liliac.* 445.

Bulbus *generis*. Folia 3, *elongato-lanceolata*, *longè* *acuminata*, *glaucæ*, *ubi* *latiora* *subundulata*. Caulis *teres*, *sesqui-bipedalis*, *subflexuosus*, *glaber*, *uniflorus*, *indivisus*. Corollæ petala *longitudinis* *ferè* 5-*uncialis*, *latitudinis* *ubi* *latissima* *vix* *excedentis* $\frac{3}{4}$ *partes* *unciaæ*, *colore* *varia*, *superne* *involuta*. Germen *prismatico-columnari*, *unciam* *cum* *alterius* *ferè* *quartâ* *parte* *altum*, *lobi* *capitelli* *stigmatosi* *profundè* *compressi*, *revoluto-divaricati*. Stamina *germine* *ex* *unâ* *quintâ* *sua* *parte* *circulèr* *breviora*.

The roots that produced the specimens from which the present drawing has been made, were imported by Mr. Hamilton (under-secretary in the department for foreign affairs) from Constantinople, and flowered last May at Mr. Knight's nursery in the King's Road, Chelsea. We have found no mention of this remarkable Tulip any where except in one of the later numbers of the work upon *Liliacées* by M. Redouté, where it is stated to have been introduced into the Parisian gardens directly from Persia, in 1811.

It is the nearest to *TULIPA gesneriana* of any other species; but differs from that as well as from all we are

acquainted with, by the depth of its fusiformly campanulate corolla, its narrow caudately lanceolate petals, and by stamens about one fifth shorter than the germen. The bulb is the usual one of the genus. Leaves 3, glaucous, elongatedly lanceolate, far acuminate, undulate where broadest. Stem from a foot and half to two feet high, round, smooth, slightly flexuose, one-flowered. Corolla about five inches deep. Filaments smooth. Germen columnar, prismatic, about an inch and one fourth high. Stigmas 3 deep laterally compressed lobes, edgewise revolute, channelled at the upper edge, and forming a triangular capital to the column of the germen, much as in the common garden-Tulip. We did not perceive that the bloom had any scent. The species is stated to be as hardy, and of as easy culture and propagation as any of the other kinds, and to have produced seed and offsets in abundance in the Parisian gardens. To us it appears the most interesting acquisition that has fallen to the share of the florist for a long while.

We certainly did not expect that so conspicuous a flower had escaped the older florists, with whom the bulbous plants of the Levant seem to have been greater favourites than with our modern gardeners. We did not think that there remained even a variety of a Hyacinth or Tulip within the reach of the correspondent of a Turkey-merchant that was unknown to them, much less so remarkable a species. It appears to be as inconstant in its colour as *gesneriana* (the common garden-Tulip).

INGA *purpurea*.
Purple Inga, or Soldier-wood.

POLYGAMIA MONOCLEA.

Nat. Ord. LEGUMINOSÆ. Jussieu gen. 345.

Div. I. Cor. regularis. Legum. multiloculare, saepius bivalve, dissepimentis transversis, loculis monospermis. Stam. distincta. Arbores aut frutices; folia abruptè pinnata.

INGA. HERMAPH. Cal. 5-dentatus. Cor. tubulosa 5-dentata. Stam. numerosa monadelpha. Legum. 1-loculare, seminibus pulpâ vel arillo involutis.

MASCULI. Cal. 5-dentatus. Cor. tubulosa 5-dentata. Stam. numerosa monadelpha. Willd. sp. pl. 4. 1004.

Div. foliis conjugato-pinnatis.

I. purpurea, inermis, foliis conjugato-pinnatis: pinnis quadrijugis: foliolis oblongis obtusis basi inæqualibus, petiolis eglandulosis, capitulis pedunculatis. Willd. sp. pl. 4. 1021.

Inga purpurea. Hort. Kew. ed. 2. 5. 454.

Mimosa purpurea. Linn. sp. pl. 2. 1500. Mill. dict. ed. 8. n. 15. Hort. Kew. 3. 439. Andrews's reposit. 372.

Acacia frutescens, non aculeata, flore purpurascente, alia. Plum. ic. tab. 10. fig. 2.

Frutex ramosus, ramis flexuosis, badio-corticatis, alteriè et remotiùs foliatis. Folia subcilia, acutè stipulata, conjugato-pinnata, levia, reticulato-venosa, sub lente ciliolata, petiolo communi partialibus breviore intus lanuginoso, bracteolâ ad pedem conjugationis; pinnæ 4-jugæ, foliolis articulato-subsessilibus, oboratis vel oblongis, apice rotundatis cum mucronulo, basi obliquatis, latere interiore laminæ plurimum angustiore; parium 2 imorunt pinnæ singulæ inæqualissimæ. Pedunculi solitarii, supernè in ramis axillares, erecti, compressi, striati, virides, folia æquantes vel subsuperantes, apice florigeri, versus medium stipuli bracteolis 2 minutis. Flores subhemisphærico-capitati absque pedicellis, excedentes unciam. Cal. herbaceus, tubulosus, corollâ triplo brevior. Cor. tenuior, profundius divisa, citè emarcescens, fere quinquies brevior staminibus. Stam. 7-9? minicca, pro longitudine corollæ tubuloso-connata, indè distincta. Germ. teres, glabrum; stylus longitudine et colore filamentorum, at crassior, suprà saepè cum gyro flexus; stigma punctum obtusum.

INGA, which includes a numerous array of species, has been formed by Willdenow, at the expence of *MIMOSA*; its chief difference from which, as well as *ACACIA*, is, that the seeds of its legumes or pods are envelopped either by a coat of pulp or a dry loose covering, termed the *aril*; neither of which are found on the seed of *MIMOSA* or *ACACIA*.

The present is a shrub which belongs to the West Indies, and was introduced by Dr. William Houstoun before 1733. It seems even now to be scarce, and is not easily brought to flower. The specimens we have seen, have not exceeded three feet, and been branched nearly from bottom to top. The branches are flexuose, with a brown bark, furnished with alternate widely set leaves. *Leaves* rather more than an inch long, acutely stipulated, conjugately pinnate, smooth, reticulately veined, and when magnified are seen to be minutely fringed, *common petiole* shorter than the two *partial ones*, a small bracte at the junction of the last; each *pinna* or wing has four pair of *leaflets*, which are sessile with a joint, obovately oblong, rounded at the top with a small point, slanting at the base, inner side of the blade far narrower than the outer, leaflets of the lower pair very unequal in size. *Peduncles* solitary, axillary in part of the upper, but not topmost, leaves of the branches, about equal to or rather longer than the leaf, upright, compressed, streaked, bearing the flowers at their top, with a pair of very minute *bractes* placed near their middle. *Flowers* without pedicels, forming by their numerous long crimson red filaments a nearly hemispherically radiant head at the end of each peduncle. *Calyx* herbaceous, tubular, thrice shorter than the corolla. *Corolla* of a tenderer and less permanent substance, deeply cleft; soon decaying, nearly five times shorter than the stamens. *Stamens* 7-10² monadelphously connate for the length of the corolla, then distinct, straight. *Style* of the same length and colour as the filaments, but much thicker, often coiled at the upper part. In some of the flowers of the same head the pistil is generally wanting, as in *ACACIA* and *MIMOSA*; which brings these genera within the first order of the twenty-third class of the Linnean system, comprehending such as have fertile and sterile flowers intermixed on the same individual.

The drawing was made last May, at the hothouse of the botanical establishment of the Comtesse de Vandes, Bayswater. It requires to be kept constantly in the tan-bed of the stove.

a The calyx and corolla. *b* The monadelphous body of stamens. *c* The pistil.



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Bot. Fig. 130. Malope (1761) P. Scandens. L. 1811. 1810.

ARCTOTIS maculata.

White tawny-stained suffrutescent Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

- *Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177.*
- *Div. VII. Receptaculum paleaccunni. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores stepiis radiati.*
- *ARCTOTIS. Suprà vol. 1. fol. 32.*

A. maculata, flosculis radiantibus fertilibus, caule suffruticoso, foliis pinnatifido-lyratis angulato-dentatis, subtus tomentosis. *Willd. sp. pl. 3. 2355.*

Arctotis maculata. Jacq. hort. schœnb. 3. 67. t. 379.

Arctotis caulescens. Thunb. prod. 165.

Caulis suffruticosus, suprà herbaceo-elongatus, tomentoso-candicans, ramosus, scapus radicans; pedunculis pedalibus, teretibus, striatis, villosis, unifloris, erectis, medio v. èd circiter stipatis bracteâ vagâ elongato-lineari. Folia plurima, caulina, distantia, lyrata, sinuato-pinnatifida, arachnoidea, suprà subcane-virentia, villis mollibus constituta, longiora subdecimuncialia, lobis distantibus, sinuato-dentatis mucrone calloso in dentibus, terminali majore ipso subtrilobato, lateralibus paucis oblongis obtusis; rachide suprà angustissimâ et intra laminam utrinque subconniventè assurgentem canaliculato-depressâ. Flores diametro ferè triunciali. Cal. insrâ arachnoideus, squamis extiniis appendice linearis-subulatâ reflexâ non hirsutâ praefixis, intimis laminâ scariosâ subhyalinâ ovatâ obtusâ. Radius numerosus, fertilis, acutus, intus ochroluco-albicans, apice fulvo, basi purpureo-maculatus, subtus fulvescens aliquando cum mixta purpurâ. Pappus paleaceus, biseriatus, c. d. r. n. mini-*mus*. In omni nobis notâ Arctotide radius floris emarcescit revolutum.

This handsome flower, we are told, has been long in our collections, but not having been distinctly recorded by Miller, or in either edition of the *Hortus Kewensis*, we are unable to fix the date of its first appearance in this country. It differs from *Arctotis aspera* (fol. 34 of this work) in the colour of the flower, in having a far softer foliage and without the rough pubescence that is perceived in that of the other, and in this not being here undulate or curled at the margin, in having far more unequal lobes and separated by wider intervals, and a very narrow midrib sunk between the sides of the blade nearly as in a channelled leaf; by the appendages of the outer leaflets of the calyx not being hirsute as there; its stem is also less decidedly frutescent or woody, the herbaceous portion of the plant more extensive, and in all those we have seen, radicating.

*Stem upright, seldom exceeding two feet and half high with its inflorescence, coated over by a white short down-like frosted silver. Leaves lyrate, sinuately pinnatifid, with wide intervals and irregular lobes, soft, greyish green above and covered with soft pubescence, white underneath like the stem, terminal lobe largest and subtrilobate. In mode of growth it is nearly similar to the *aspera* of this work. Ray more than two inches across, of a cream-coloured white on the inside, suffused at the points and back with a tawny yellow hue, at the inner base, above the short tubes of the florets, of a blackish purple colour.*

A hardy greenhouse plant. Easily increased by cuttings planted out in the open ground. Requires a considerable share of water in the summer months, during which it continues to produce a succession of bloom.

'The drawing was made at Messrs. Colvilles' nursery, in the King's Road, Chelsea.

a A floret of the ray, with its germen. b A floret of the disk. c The calyx dissected vertically, to show the receptacle of the flower.



1000 mm

1000 mm

ARCTOTIS tricolor.
Dwarf tricolor Arctotis.

SYNGENESIA POLYGAMIA NECESSARIA.

• *Nat. Ord. CORYMBIFERÆ. Jussieu gen. 177. •*

Div. VII. Receptaculum paleaceum. Semen papposum, pappo plumoso aut piloso aut aristato (v. paleaceo). Flores saepius radiati.

ARCTOTIS. Suprà vol. 1. fol. 32.

A. tricolor, acaulis : foliis lyratis, repandis, suprà obsoletè villosis, subtùs tomentosis ; foliolis extimis calycinis totis linearibus subclavatis erectis tomentoso-candicantibus cum mucrone recurvo.

Arctotis tricolor. Jacq. hort. schænb. 2. 27. t. 159. Willd. sp. pl. 3. 2349. Hort. Kew. ed. 2. 5. 169.

Acaulis, perennis. Folia plurima, radicalia, multifaria, patentissima, 4-5-uncialia, exteriora plura lyrata, repanda, 7-nervia, suprà obsoletè pubescentia, tactui asperiuscula, nervis arachnoidea, subtùs lanâ araneosa candicantia, lobo terminali ovato-oblongo, lateralibus paucis obliquis obtusis integris ; interiora pauca erectiora laminâ ovato-lanceolatâ integrâ. Scapi villosi, uniflori, sesunciales ad pedales, bracteâ vagâ versus medium positâ. Cal. campanulatus, subarachnoideus, at infrâ virescens, et foliolis nonnullis infimis candicantibus instar costarum insignitus ; foliola intima subhyalino-scariosa, ovato-lanceolata, subrubentia. Radius 2 uncias transversè excedens, tridenticulato-acutus, intùs ochroleuco-candicans, basi atropurpureo-maculatus, extùs purpurascens. Discus nigricans. Germina radii et serierum aliquarum periphericarum disci fertilia basi sericeo-hirsuta, centraliora sterilia nuda : Pappus serie simplici, paleaceus.

Tricolor differs from *acaulis*, which appeared in the fasciculus of the last month, by a foliage, which is obsoletely villous on the upper side, not covered by a dense rough pile, and by a flower of a different colour ; but more decidedly by the remarkable outer leaflets of the calyx, which are narrow linear subclavate recurvedly mucronate and of a frosted white colour ; the innermost ones are also more pointed than in *acaulis*. . . .

The curious economy and sensitive property which we observed in the style and stigmas of *auricula* and *aspera*, and described in the 32d and 34th articles of this work, are likewise found in the three species since published, and will be so probably in many, if not all, others of the genus.

Of whatever colour the ray of the flower has been, in the species which have fallen under our notice, the disk has uniformly been of a deep shining blackish brown, previous to the complete expansion of the florets; when it becomes of a dusky opaque green. The first appearance is produced by a tesselated surface formed of small blackish flat protuberances at the backs of the segments of each floret; these lie uppermost before expansion, when the whole plane is gradually broken up by the extrusion of the stigmas, and the backs of the segments being reversed by the unfolding of the limb, the inner surface comes in, view in their place.

In the present species the leaves are several, all radical, generally lyrate, one or two of the innermost entire with an ovately lanceolate blade, covered beneath by a white cottony pubescence; the short pile on the upper side is more easily perceived by the feel than sight, and scarcely obscures the green colour of the leaf. *Scapes* or *peduncles* from six inches to a foot high, radical, one-flowered, villous. *Flowers* nearly three inches across; ray white on the inside with a purple-black base, on the outside deep purple. The pappus of the seed consists of oblong obtuse paleæ or chaffs placed in a single series.

Native of the Cape of Good Hope; from whence it was introduced by the late Mr. Masson in 1794. Like the rest of its congeners requires to be sheltered in the greenhouse, and planted in a mixture of peat-earth and hazel-loam. Easily propagated by suckers. Blooms from May to July.

The drawing was made at the nursery of Messrs. Lee and Kennedy at Hammersmith.

a A floret of the ray and germinæ. *b* The same of the disk. *c* The calyx dissected vertically, to show the paleaceous or chaffy plume of the receptacle of the flower, as it appears when deprived of the florets.

LILIUM pumilum.
Dwarf Lily or Sarana.

LEXANDRIA MONOGYNA.

Nat. ord. LILIA. Jussieu gen. 48.

LILIUM. *Inflor. saepius pedunculata. Cal. O. Cor. infusa, hexapetalo-partita, turbinato-campanata, erecta v. cernua, laciniis lanceolatis patentibus v. revolutis, intus exaratis sulco medio longitudinali nudo v. ciliato. Stylus cum stigmate tritoroso-capitato clavatus. Caps. cartilaginea, turbinata v. oblonga, trigona, 3-loc., 3-valv., valvis medio septigeris, septis margini internae utrinque seminiferis. Sem. numerosa, plana, discoidea, in loculis cumulata duplii ordine, extorsum rotundata, introrsum attenuata.*

Bulbus varie squamosus, nudus, saepè per rhizoma infrà productum repens. Caulis foliosus, simplex. Folia plurifaria, carnosula, varie lanceolata, nunc radicalia et caulinia, nunc sola caulinia, nunc sparsa et confertiora, nunc verticillata et distantiora. Inflor. terminalis, 1-multiplicata in umbellam, corymbum, thyrsum, racemum, v. paniculam disposita, foliacea-bracteata aut verticillatum cincta, pedunculis 1-floris modo referentibus ramos, raro divisis. Cor. speciosa, saepius majuscula. Discrepat confini FRITILLARIÆ ex bulbo squamoso, ex foliis interstinctibus flores, non superantibus eodem in comam, exque corollâ non extas ad basin torosâ nodis senis respondentibus cavulis totidem meliferis.

L. pumilum, foliis lineari-subulatis sparsis glabris, floribus reflexis, corollis revolutis intus glabris. *Redouté liliac. 378.*

Lilium reflexum, montanum humile, angustifolium, Sarana Mungulis in Dauriâ, Messerschm. *Amm. ruth. 105. n. 138; (nec verò planta cui pro synonymo datur in Gmel. sib.)*

Bulbus albus compacto-squamatus ovato-pyramidalatus magnitudine nucleus arellante major. In plantâ frugiferâ folia cuncta caulinia, laxis sparsa patentissima carnosula linearia, acuminata, 2-3 uncias longa, vix lineam lata, obsoletè canaliculata-carinata, sub lente pustulis minutis oblongis lucidis crebrimis puncticulata, margine laevia et obtusula. Caulis 6-7-uncialis crassitudine penuæ corvinæ, erectus, nudo spatio summa folia et infloretantiam interveniente, teres. Flores aurantiaco-coccinei, strenue graticque odori, 1-4, umbellati, pedunculis biuncidibus, longioribus corollâ, erectis, apice inflexis, foliis totidem cum pilis paucis deciduis ad basin verticillato-cinctis. Cor. cernua, ad basin usque revoluto-reflexa, immundicata, intus striatula, nudus tuberculis omnique pubes; laciniæ lanceolatae, infra medium sulco glabra marginibus cuniculatum conniventibus exaratae, apice lanuginosæ. Stan. corollæ regularia, fasciculato-divergentia, pallido-rubentia: anth. vibratiles, polline aurantiaco. Germ. àride, columnare, tereti-trigonum, æquans stylum rubido-fuscum; stigma capitato-trilobum.

The smallest flowered species yet known of the genus, and quite new in the gardens of this country. A repre-

sentation of it has appeared in a recent fasciculus of Mons. Redouté's work on Liliaceous plants; where it is stated to have been bloomed in the garden of the Museum of Natural History of Paris for the first time, and is surmised to be a native of Peru. But the presumption, in regard to its origin, must have arisen from some mistake. The seed from which the present plant has been raised was derived from Moscow, by way of Berlin. And the species is certainly native of the oriental provinces of Russia, particularly of Dauria, where its roots, as well as that of other species, are eaten, and called Sarana by the Mogul natives. It comes near to *chalcedonicum* and *pomponium*, but differs from both by having a corolla free from excrescences, and by a smooth-edged groove down the segments; as well as from each respectively in other points.

The root is a white bulb, about the size of a blackbird's egg; while barren, producing three or four lorately lanceolate leaves, about half an inch broad, tapered downwards as if petioled. In the fertile plant the foliage is wholly cauliné. Stem 6-7 inches high, not thicker than a small oaten straw, loosely set with fleshy patent narrow linear pointed leaves from two to three inches long, and little more than a line broad, obscurely carinated or keeled, with a blunt even unciliated edge. Flowers odorous, 2-4 in a terminal umbel, surrounded at the base by an equal number of leaves, with a naked interval between them and the uppermost stem-ones; peduncles about two inches long. Corolla of an unspotted orange-red or flame colour, cernuous and revolute reflectent to the base, shorter than its peduncle; the groove in each segment runs from about the middle to the base, and converges at the edge, so as to form a covered channel or pipe. Germen green. Style and stigma reddish brown. Filaments red, divergent; pollen orange.

A hardy plant. Introduced by Messrs. Whitley, Brames, and Milne, at whose nursery in the King's Road, Fulham, the drawing was made in June last.

a A barren root, with the foliage. *b* The pistil.





PAPAVER floribundum.

Armenian Poppy.

POLYANDRIA MONOGYNIA.

Nat. ord. PAPAVERACEÆ. Jussieu gen. 235.

Div. I. Staminia (hypogyna) indefinita; antheræ filamentis adnatae.
PAPAVER. Cal. diphyllo, caducus. Pet. 4. Germ. 1; stylus 0; stigma radiatum persistens. Caps. 1- (s. incompletè·multi-) loc., polysperma, ovata aut oblonga, pluribus instructa receptaculis [totidem quot radii stigmatis] seminiferis, ad parietes intùs prominulis, dehiscens ad apicem sub singulo radio totidem foraminulis iufrà univalvibus. Sem. numerosissima. Herba. Folia alterna. Flores solitarii terminales; succus lacteus. Jussieu gen. 236.

Div. Capsulis glabris.

P. floribundum, foliis imis pinnatis superis pinnatifidis, villosis, incisis; ramis floriferis axillaribus et terminalibus; pedunculis unifloris; capsulis glabris, oblongis. Desfont. in ann. du mus. 11. 376. t. 33.
Papaver orientale, tenuiter incisum, ad caulem floridum. Tournef. cor. 17.

Herba perennis? 1-2-pedalis, glauca. Folia setis erectis sparsis exsiccatione glaucentibus hispida; radicalia plurima, basi imbricata, multifaria, subtriuncalia, oblongata, de medio petioli impari-pinnata, pinis oppositis decrescentibus subtrilobo-pinnatifidis proximis obliquatis subundulatis, lobis inaequatè incisis, lobulis praefixis scđa longiore; petiolas subtus et margine pilosus, supra planiusculus: caulina distantia, tandem sessilia, dein merè bractæ. Caulis patenti-paniculatus, robustus, flexuoso-erectus, teres, laxis, setis vagis rarissimis conspersus, rami axillares et terminales, divisi in pedunculos 3-5 filiformes unifloros suffultos bractæ foliaceæ, summi corymboso-fastigiantes simpliciores nudiores. Flores ante anthesin pendulo-nutantes, dein erecti. Cal. obovato-ellipticus, ovo pusserino minor, setis confertim echinatus, modò parciùs, vel omnino depilis. Cor. uncis tres transversa, miniatè-splendens, petalis subquaternis, obovato-rotundatis, plicato-corrugatis, margine summa eroso-repandis. Stam. ochroleuco-pallida. Germ. viridis, ovali-oblongum, deorsum contractum; stigma violaceum, 4-6-radiatum, velutinum.

• Found by Tournefort in Armenia, and registered by him in the Corollary of his Institutes under a short specific phrase, meant, like the others in that work, for more titles to correspond with his Herbarium and the drawings by Aubriet, the artist who accompanied him during his travels in the Levant. But it was the intention of this accomplished naturalist to have given the world a work, consisting of descriptions and farther history of the plants contained in this Prodromus or Index; when his purpose was defeated by a premature death. Thus the principal part of

the plants he had enumerated were left to be ascertained only by access to unpublished documents. Within these last few years this want has been in part supplied by Prof. Edsfontaines, who has published engravings of a judicious selection of the drawings, and descriptions from the original specimens of the Herbarium, in the Annals of the Museum of Natural History at Paris. Among the figures is one of the present species, of which there is a specimen from Tournefort's Herbarium in that of Sir Joseph Banks.

It now makes a first appearance in the collections of this country, having been raised by Messrs. Whitley, Brames, and Milne from seed received through Berlin from Moscow, at which last place several extensive botanic gardens have been lately formed by some of the principal inhabitants. Through these means many rare and curious oriental vegetables, well suited to our climate, might be easily obtained.

We are not certain whether the species is perennial or biennial. We know of none that approaches it in the abundance of bloom. The foliage is about three inches high, of a glaucous or blueish white hue; thinly hispid, with upright hairs, a longer bristle terminating each lobe of the leaflets of the pinnated leaves, these turn yellow in the dried plant. The *stem* is from one to two feet high, of the thickness of a common pen, and branched from near the base to the summit, smooth or with a few straggling bristles, *branches* often divided. *Corolla* three inches or more across, salmon-coloured. *Germen* green, smooth, oval-oblong, narrowing towards the base: *stigma* violet-purple, conical, varying from with 4 to with 6 rays. *Stamens* pale straw-colour.

The drawing was made in June, at the garden of the above-mentioned nurserymen, in the King's Road, Fulham.



TRITONIA refracta.

Reflex Tritonia.

TRIANDRIA MONOGYNYA.

Nat. ord. Ensatæ. Linn. et Nobis in Ann. bot. 1. 219.

IRIDES. Jussieu gen. 57. IRIDEÆ. Brown prod. 302.

TRITONIA. Inflor. alterne spicata, distincta spathis bivalvibus conduplicatis unifloris non aristato-laceris. Cor. supera, infundibuliformis saepè resupinata; limbus varie patens, sexpartitus, æqualis vel inæqualis, regularis v. irregularis, brevior v. longior tubo, fauce inflatâ vel angustâ turbinatâ. Stam. summo tubo infra faucem posita, contigua v. divergentia, inclinata rariùs trifariâm erecta: anth. à dorso pensiles v. incumbentes. Stylus filiformis. Stig. 3, membranosa, canaliculatolinearia, replicata, raro bifida. Caps. pergamiuca, ovato-rotunda oblongave, tritorosa, triloc., trivalv., valvis medio septigcris margine internâ utrinque seminiferis: sem. globosa variè pressa, magnitudine ferè Sinapeos: albumen cornueum.

*Bulbo-tuberis nucleus castaneo-carnosus, frugifer quotannis renovandus, inclusis perennantibus membranaceis nervosis involutus, multic per fila rhizomatosa tuberipara repens. Folia plura, collaterali-bifaria, gramineo-ensata. Caulis culmaceus, nunc polystachio-ramosus. Flores majusculi, sapiùs secundo-inflexi, ferè semper intra labium inferius nactis (nectarostigmatibus) trinis discoloribus saepè in callos totidem compressos sublevatis insigniti. Nobis in Ann. bot. 1. 227; et in Curtis's magaz. 1275. HOUTTUYNIA. Houtt. nat. hist. 12. 448; ejusd. Phil. syst. 11. 522. MONBRETIA. Redouté liliac. 53. HEXAGLOTTIS. Ventenat decas gen. pl. 6. n. 3. *Dissert confini SPARAXIDE, præprimis spathis non aristato-laceris; GLADIOLO, seminibus non alatis; IXIÀ, tubo corollæ ultra insertionem staminum in faucem continuato.**

T. refracta, spica reflexa; corollis erecto-secundis, resupinatis: tubo infundibuliformi, longiore limbo semiringente ecalloso; staminibus ascendentibus; stigmatibus bifidis.

Tritonia refracta. Nobis in Ann. bot. 1. 228, et in Curtis's magaz. 1275, verso fol. absque tabulâ.

Gladiolus refractus. Jacq. coll. suppl. 26. ic. rar. 2. t. 241. Vahl enum. 2. 109. Redouté liliac. 419.

Gladiolus resupinatus. Persoon syn. 1. 4.5.

Folia angustius ensata, glauco pulvrisculo irrorata, erecta, interiora longiora sesquipedalia, ima brevia vaginantis pурpurascens, caulina ramos amplectentia. Caulis bipedalis strictus, gracilis, remotè divaricato-subpinnatulus, infra spicam supra folia refractus, 3-4-stachys. Spicæ simplices, reflexæ flexuose, secundæ, lagiùs sub-7-floræ. Flores fragrantes, arrecto-resupinati, sesquijunciales. Spathæ brevissimæ sphacelato-albicanter, æquivalves, purpureo-striatulæ, acutæ, valvâ posticâ bifidæ. Germ. oblongum, breve, rotundato-trigonum. Cpr. vi. di. flava, infundibuliformis; tubus gracilis tereti-trigonus, continuatus in faucem longiore turbinato-campanulatam fundâ intus flavicantem et suprà flavo-trimaculatam; limbus subinæ-

qualis bis brevior tubo cum fauce, lacinii ovatis; labium summum erectum, collaterali-divergens, concolor, lacinii lateralibus posticè versùs obliquatis, mediâ latiore subcordatâ; labium inum reflexum, connivens, subbrevis et depresso, maximâ parte intense flavescens, lacinii 3 striâ mediâ purpureâ lanceolato-lineari verticali pictis, utrinque inflexis, mediâ duplo angustiore, at æquilongâ cæteris. Anth. ochroleucæ, fauce brevè emicantia, basi sagittata, à dorso verticali-pensiles. Stig. albida, decurva, bifida, apiculis eroso-luceris.

TRITONIA may be always known from Ixia, by a tube which is enlarged to a broader fauex, below which the stamens are inserted, not as in Ixia, immediately at the foot of the limb; from GLADIOLUS and BABIANA by seed, which is neither alate (winged) nor baccate (berried); from SPARAXIS, to which it comes the nearest, by closer fitting un-lacerated spathes. In colour and inflection of the limb it is variable, like other genera of the order.

The present is one of the rarest species of the tribe; and, as far as we can trace, has been now first introduced from the Cape of Good Hope by Messrs. Lee and Kennedy of the Hammersmith nursery, where the drawing was made in June. The *stem* or *culm* is from a foot and half to more than two feet long, of the size and appearance to be expected in a grass of the same stature, divided into three or four divaricate distant branches, each terminated by a spike of about 7 flowers as well as itself. The foliage consists of several grassy slightly glaucous narrow *leaves*, equitant and sheathing below, facing each other by the edges of the blade, reaching to the base of the uppermost spike. *Flowers* fragrant, inverted, about an inch and half deep, of a pale greenish yellow colour, mottled with a deep orange yellow within the fauex, and at the sides of the segments of the lower lip. *Spathes* very small, white, when viewed near streaked with purple, scarcely higher than the germen they enclose. *Stamens* ascendent, scarcely surmounting the orifice of the fauex. *Stigma* bifid, with uneven tips.

A hardy greenhouse plant; requiring to be kept in peat-earth, and to have the bulbs taken up, and the offsets removed at least every second year.

a Corolla dissectæ vertically. *b* Pistil.



Bot. by J. Stebbins of Princeton, Sept. 11, 1870

PRUNUS prostrata.
Birch-leaved Mountain Plum.

ICOSANDRIA MONOGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 394.

Div. VII. Germ. unicum superum monostylum. Nux mono- aut disperma, nuda aut sæpius drupacea. Arbores aut frutices. AMYGDALÆ.

PRUNUS, Suprà vol. 1. fol. 27.

P. prostrata, pedunculis geminis, foliis ovatis inciso-serratis eglandulosis subtûs tomentoso-albicantibus, caule prostrato. *Labillard. syr.* 15. t. 6.

Prunus prostrata. Willd. sp. pl. 2. 997. Smith prodr. fl. græc. 1. 340.
Hort. Kew. ed. 2. 3. 199.

Amygdali incanæ, var. Pallas ross. 1. 13. tab. 7; unicè tanæ quoq; figuram à sinistris tabulæ; aliæ ambæ enim sunt reveræ Amygdali incanæ.

Prunus cretica montana minima humisusa, flore suave rubente. Tournef. cor. 4.5.

Frutex humilis, ramosior, ramis sæpius deflexo-prostratis, cortice nigro-fuscescente glabro. Folia ovato-rotunda, utroque fine attenuata, eglandulosa, nervosa, serrata, suprà villosiuscula, subtûs tomentoso-albicantia, tertiam uncia partem circiter longa, brevissimè petiolata: stipulæ parrulae lanceolatae. Flores subgemini, subsessiles, axillares, vix æquantes folia, roseo-rubentes. Cal. tubulosus, 5-fidus, extùs villosus, segmentis stellatis subcoloratis lanceo-lato-oblongis, 2-3-plò angustioribus petalis, intùs albo-barbatis. Pet. rosacea, subrotunda, ungu brevissimo, vix longiores segmentis calycinis. Stam. 20-24 subexsertæ, erectæ, calyci inserta serie alternè duplice: anth. peltatae, rotundæ, flavescentes, inflexæ. Germ. viride, ellipticum, compressum, subnudum stylus exsupercans antheras, filiformis, strictus, rubidus, infernè lanatus stigma unilateralis, obliquum, lobiformi-dilatatum, concavum. Drupa (didente Labillardière) ovata, rubra, pulpâ perpaucâ obducta: nux ovata, suturis vix prominulis.

• • Looking at the blossom, we should have thought this species had ranked under AMYGDALUS. But the limits between that genus and PRUNUS are decided by the stone of the fruit; the shell of this in the first genus is punctured at the outer surface by numerous small holes, nearly as fine as pores; a feature which is not found in the latter, the shell of which is distinguished by the prominent sutures of the margin. And those who have had the opportunity of examining the fruit of our plant, have found it to belong to PRUNUS.

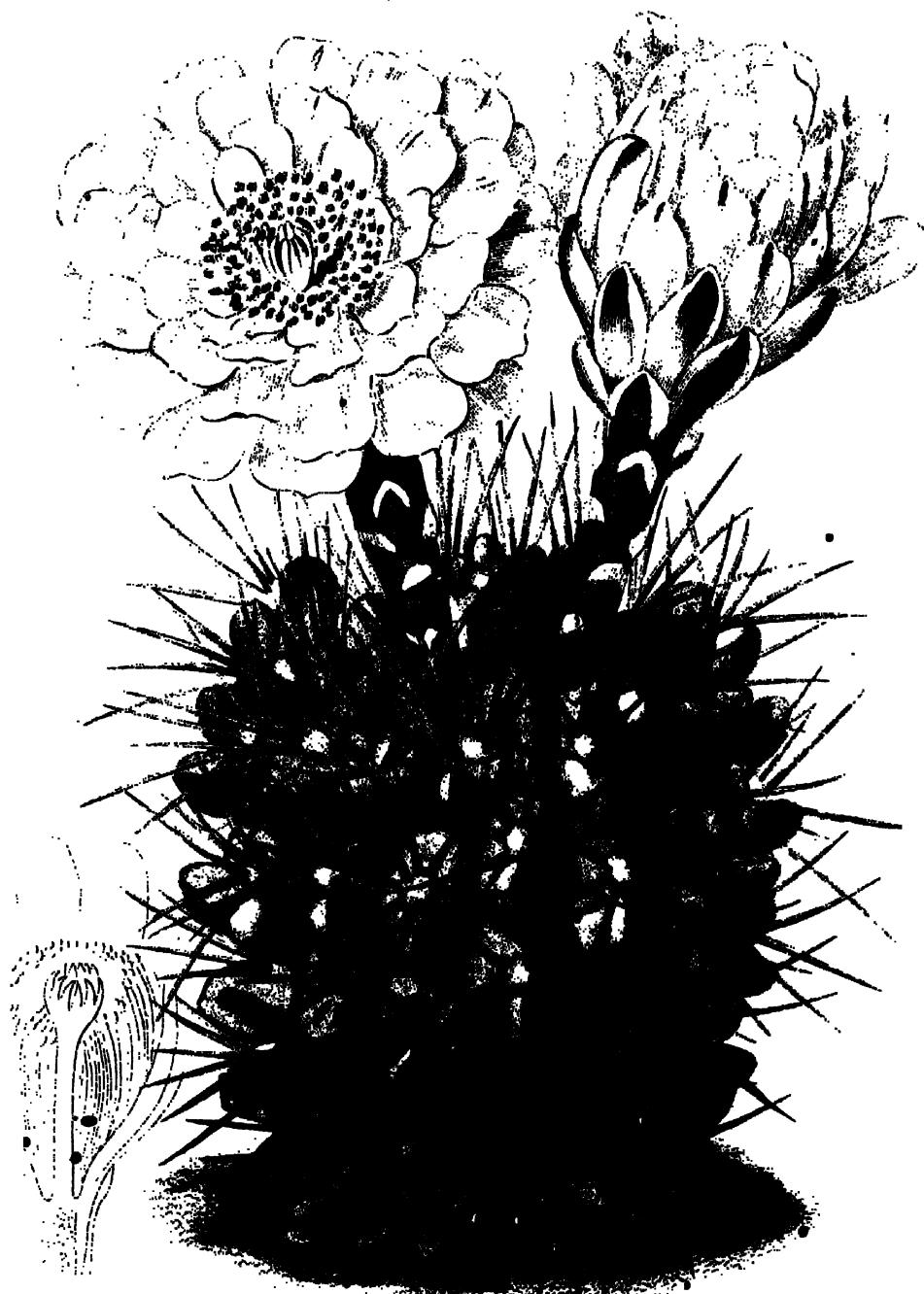
Native of particular mountains in the Levant; of Ida, in the island of Crete, of Parnassus, and of Lebanon, where it is said to grow in a region elevated 1000 fathom above the level of the sea, spreading itself along the ground, which it covers with its finely peach-coloured bloom, as soon as the snow has completely disappeared from the spot. The Chevalier Pallas received samples of it from the neighbourhood of Tefflis, the capital of Georgia in Asia, but seems to have mistaken it for a variety of *AMYGDALUS incana*, along with which he has figured it in the same engraving. The wood of the bush has much the appearance of our common sloe; nor is the foliage thoroughly the almond kind, and the species may be looked upon as one of the connecting links between that genus and the plum.

The specimens we have seen have been about 3 feet high; the *stem* not procumbent, as described to be in its native abode, but had long branches which were so bent as to lie along the ground. The *foliage* is of a round oval form, tapering at each extremity, not more than one third of an inch long, nerved, serrate, clothed with white down on the under surface, obsoletely petioled. *Flowers* generally in pairs, scarcely equal to the leaves, nearly sessile. *Calyx* tubular, with stellately expanded segments, which are bearded on the inside. *Petals* roundish, 2-3 times broader, but scarcely longer, than the segments of the calyx. *Stamens* 22-24, alternating in two rows, one above the other, upright, longer than the corolla: *anthers* round peltate. *Germen* nearly smooth, green: *style* higher than the stamens, reddish, upright, bearded below: *stigma* unilateral lobe-shaped. According to M. Labillardière, the plum is ovate and red, with a very thin coat of flesh, and a stone in which the sutures have scarcely any projection.

Introduced by Mons. Cels in 1802. Hardy. Flowers in April and May.

The drawing was made at the nursery of Messrs. Lee and Kennedy, Hammersmith.

a The calyx dissected, to show the insertion of the stamens. *b* The pistil.



CACTUS gibbosus.

Mr. Vere's Melon-Thistle.

ICOSANDRIA MONOGYNA.

Nat. ord. CACTI. Jussieu gen. 310.

Div. II. Petala et stamina indefinita.

CACTUS. *Cal.* urceolatus aut longior tubulosus, squamis numerosis appendiciformibus sàpè imbricatis tectus, suprà germen deciduus. *Petala* numerosa multiplici serie, summo calyci inserta, basi subcoalita, interiora majora. *Stam.* ibidèm inserta pariter infrà coalita, antheris oblongis. *Stylus* longus; *stig.* multifidum. *Bacca* infera, umbilicata squamularum vestigiis exasperata, 1-loc., ad parietes seminifera; polysperma seminibus in pulpâ nidulantibus. *Arbores* ari fruices, pingues, formâ varii sapiùs aphylli et articulati, plerùmque obducti spinis fasciculatis et pilis in singulo fasciculo intermixtis. *Opuntiae* stamina tūllatione irritabilia. Jussieu gen. 311.

Div. Echinomelocacti, subrotundi.

C. gibbosus, oblongiusculus, 16-angularis; spinarum fasciculis in unâ serie jugis costarum, alternantibus cum tuberculis totidem nudis elongato-mammiosis et compressiusculis.

Cactus gibbosus. Haworth pl. succ. 173.

Turbinato-cylindricus, sordide virens, parùm excedens 3 uncias, diametro 2 cum dimidio, costato-angularis; costæ longitudinales è tuberculis obesis depresso coronatis areolâ planâ fusco-tomentosa spinis sub-7 validissimis acicularibus serie simplici fasciculato-divergentibus (junioribus albo et fusco variis) armatâ, et ex aliis alternis macrioribus compresso-mammillaribus glabris inermibus atque plurimù prominentioribus; in summo vertice floriger, depresso, tuberculis armatis orbatus et mammillaribus diminutis tessellatus. Flores (hèc 2) axillares in fasciculis spinarum costas terminant, solitarii, ferme triunciales, inferius calycini virentes, superius petalini sordescentes et pallidescentes, intùs candicantes, inodori. *Cal.* cylindricus squamis obtusis appressis albidis dissimile sparsis consitus, ubi recondit germen parùm pennâ majore crassior uncialis persistens, ultrà deciduus. *Petala* numerosa obtuse-ligulata mucronato-obtusa, basi coalescentia, interiora longiora, vix latiora. Spinae recentiùs enatae profectè *Erinacei* similes; seniores perpendunt coloris variegationem.

A species not yet received into any general enumération of vegetables, nor till now known to botanists by the inflorescence. It has been cultivated in the hothouse of Mr. Vere, at Kensington Gore, from before 1808, and flowered in June last, for the first time. This gentleman's gardener informs us, that it was raised from seed received from Jamaica by Messrs. Lee and Kennedy, of the Ham-

mersmith nursery. It belongs to the section of the Genus arranged under the appellation of "*Echinomelocacti*," or "*Melon-Thistles*," from the form and armature of the species of which it consists. Some of these strange-looking vegetables are said to exceed two yards in girth in their native places, and are composed of a succulent green flesh of one consistence throughout. In times of drought they are known to be sought for by the cattle, who after stripping off their spiny covering with their horns, devour them greedily. The entire genus, with the exception of *C. Opuntia*, common to both Europe and America, is spontaneous in the West Indian Islands, and the warmer parts of the american continent; where its numerous and multiform species are said to grow from fissures in the sides of the steepest rocks. The fruit (or fig or pear, as it is sometimes called from its shape) is esculent in most of them.

The present specimen, the only one we have seen of the species, was not much more than three inches high, of an oblong cylindrical form, depressed at the summit, somewhat narrowed towards the base, and had 16 angles or ribs. Each rib or angle consists of a vertical rank of tubercles of two different forms, alternating one with the other, one sort having a depressed tomentose crown, armed with a divergent fascicle of about 7 or 8 horny acicular thorns, the other sort narrower, free from all pubescence and armature, and projecting much beyond the other. The flowers spring from the axils of the uppermost thorny fascicles, which terminate each rib at the outer edge of the depressed thornless tessellated area of the summit of the plant; these in this instance were two, nearly 3 inches in length, externally of a reddish or liver-coloured green, internally white, scentless. *Corolla* composed of numerous obtuseately ligulate petals, arranged in several imbricating ranks. *Germen* about an inch long enclosed within the green cylindrical outwardly loose-scaled persistent calyx.

* A flower dissected vertically, to show the stamens, style, stigmas, and the interior of the germen enclosed in the persistent tubular portion of the calyx.

AMARYLLIS coranica.

Corana Amaryllis.

ALEXANDRIA MONOGYNA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 290.

AMARYLLIS. Suprà vol. 1. fol. 23.

A. coranica, foliis bifariis alternè utrèque versùs falcato-obliquatis serrulatis; scapo plano duplo altiore umbellâ numerosâ; corollis regulâribus infundibuliformibus revolutis duplo longioribus pedicellis: tubo duplo breviore limbo.

Bulbus ovato-sphæricus, diametro sæpè novemunciali, integumentis nervoso-membranaceis ferè innumeris externè versùs in crustam crassam duram et fragilem conferruminatis tectus. Folia 6-12, lorula, sesuncialia ad bipedalia; maximu[m] sesquiunciam lata, glauca, suprà convexiuscula et striata. Scapus lateralis, inclinatus, plano-anceps, glaucus. Spatha bivalvis, ovato-lanceolata, sphacelata. Flores 20-40, laxiùs et convexius umbellati, successivis vespèris dispandentes, odorati, purpureo-pallescens at subtristè et opacè: pedicelli teretes, subunciales, ramentis bracteaceis interstincti, neque ac in BRUNSVIGIA cum fructu clavato-elongandi. Germen breve, oblongum, rotundatum, polyspermum, ovoidis 15 circiter in singulo loculo biscribatim congestis. Corollæ tubus subuncialis, rotundato-trigonus, fauce nudâ; limbus eodem duplo longior, turbinato-campanulatus, superne revolitus, lucinius ad basin usque distantibus, linearis-lanceolatis, subæqualibus, lineas 2 circiter latis, alternis humato-apiculatis. Stam. $\frac{1}{2}$ parte breviora limbo, erecto-divergentia: fil. ori tubi imposita, corollæ concolora: anth. lineares, post anthesin lunulato-curvatae, incumbentes, vibratiles. Stylus filamentorum concolor, tristriato-filiformis, parùm attenuatus, inclinatus, flori æqualis: stig. punctum obtusum.

Besides being new and ornamental, the present species has a claim to our interest as the first fruit offered to the public from the long and arduous expedition of Mr. W. J. Burchell. This meritorious traveller has recently returned to his country after an absence of more than five years, four of which have been unremittingly occupied in exploring the regions adjoining, the settlements at the Cape of Good Hope, in such directions and for such distances as have enabled him to investigate vast tracts not visited by any European. Zeal for science prompted the undertaking, and his own purse has defrayed the expense of it. He is now preparing a narrative for publication from the sources of a very copious journal. This will be followed by a separate work devoted wholly to natural history;

in each branch of which his collections are ample, but most extensive in Botany and Zoology. A map will prove the attention that Geography has received at his hands. The landscapes, portraits of the natives, and drawings of the various objects of his attention are both skilful and numerous. So that taking into account the industry and acquirements of this gentleman, we may justly expect one of the most instructive and amusing books which have appeared.

The following are the memoranda with which he has obliged us concerning the subject of this article. "I discovered this beautiful plant in the Corana country, in the interior of Africa, several days' journey beyond the Orange river, in the latitude of 28 degrees south. It grew in a grassy plain of sand, in such profusion as to remind me of a vast bed of choice flowers. The air was perfumed by an odour from the blossom resembling that of the Tuberose. It begins to open its flowers in succession about sunset, and continues in beauty for about a week or fortnight. The bulbs as they stood when I found them were nearly nine inches in diameter, of a spherical form enveloped in a coat formed by innumerable integuments, the outermost of which were grown together into a hard brittle mass, forming the exterior bark. From an estimate of the number of the integuments, I should judge the larger bulbs the growth of not less than 200 years, probably of 300. When divested of the external exuviae, the live part does not exceed $4\frac{1}{2}$ inches in diameter. Notwithstanding those I have brought home have been 3 years and 3 months out of ground, they are now growing in my garden in as flourishing a state as on their native spot, and have flowered in perfection. In their own climate the bloom is produced in December, and it is not unworthy of remark how readily they have yielded to the reversal of the seasons in this part of the globe by flowering in June."

AMARYLLIS coranica (the specific appellation of which we have adopted from Mr. Burchell) has considerable affinity with *BRUNSVIGIA sulcata* (*Cart. Mag.* 1443), but is much smaller in the bloom, which is also revolute; nor are the peduncles angular or continuously and clavately elongated with the ripening fruit. But the most material difference, and that which distinguishes the genera, is, that



Illustration of a flowering plant, possibly a Solanum species, showing a stem with large leaves and a terminal cluster of flowers.

Fig. 7

SOLANUM decurrens.

Decurrent-leaved Nightshade.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANÆ. *Jussieu gen.* 124. *Div. II.* Fructus baccatus.
 SOLANÆ. *Brown prod.* 443.
Div. I. Corolla limbo sæpius plicato. Stamina numero laciniarum. Embryo valdè curvatus. SOLANÆ VERÆ. *Brown loc. cit.*
Subdiv. A. Pericarpium baccatum. *Id. eod. loc.*
 SOLANUM. *Suprà vol. 1. fol. 71.*

Div. Aculeata.

Sub-div. Corollis 5-fidis, bacris calyce aucto et aculeato tectis. Antheris æqualibus.

S. decurrens, caule fruticoso villoso aculeato, foliis pinnatifidis, lacinias acutis, sinuato-dentatis, racemis cymosis lateralibus terminalibusque. *Dunal solan.* 232. n. 195. t. 3. *D.*; (sub S. Balbisii).

Solanum decurrens. *Balbis ic. et descr. fasc.* 1. 17. t. 1.

S. Balbisii. *Dunal loc. cit.* *Poiret suppl. encyc. Lamarck.* 3. 776. (sub Morelle de Balbis.)

S. brancæfolium. *Jacq. ecl.* 14. t. 7.

S. sisymbriifolium. *Lamarck encyc.* 4. 307. n. 83. *Illust. gen.* 2386. *Persoon syn.* 1. 228. *Dunal solan.* 232.

Frutex modò orgyalis, erectus, viscido-hirsutus, aculeatus, ramosus, nau-
 scosè olens. Folia viscoso-villosa, petiolata, oblonga, semipedalia et ultra,
 sinuato-pinnatifida, ad nervos flavo-aculeata, lobis lateralibus lanceolatis inte-
 gris v. repando-dentatis, summo majore ovato-acuminato, angulato, inciso-la-
 bato: petioli longi aculeati, semiamplexicaules, subdecurrentes. Racemi la-
 terales folio inferiò oppositi et terminales, semipedales, multiflori, disticho-
 secundi, ex revolutis urrecto-evolvendi, floribus primariis 2 aut 3 hermaphro-
 ditis fertilibus, ceteris sterilibus masculis: pedunculi aculeati, hirsuti; pe-
 dicelli ebracteati filiformes flore duplo breviores. Cal. herbaceus, utrinque
 viscoso-villosus, extùs aculeatus in flore fertili, stellato-campanulatus, segmentis
 ovato-lanceolatis duplo brevioribus corollâ. Cor. candidissima, micans, subdi-
 phara, extùs lanuginosa, rotata, sesquiunciam transversa, medio tenus 5-
 fida, jaciñis lato-ovatis, brevè acuminatis, distinctis sinibus acutis. Stam.
 declinato-conniventia, scè triplo breviora corollâ, æqualia; anth. luteæ, duplo
 longiore; filamentis, curvulae. Germ. parvulum, ovato-conicum, glanduloso-
 villosum; stylus (in sterilibus brevissimus) in fertilibus exsuperans stamina,
 declinatu, filiformi-clavatus: stig. continuum viride, ovato-oblongum, subdi-
 dynum, obtusum, pruinatum. (Bacca croceo-rubens, sudorata, magnitudine
 parvi cerasi, bilocularis, glabra, viscosa; primùm calyce aucto tecta, dein eodem
 refexo nuda, edulis.)

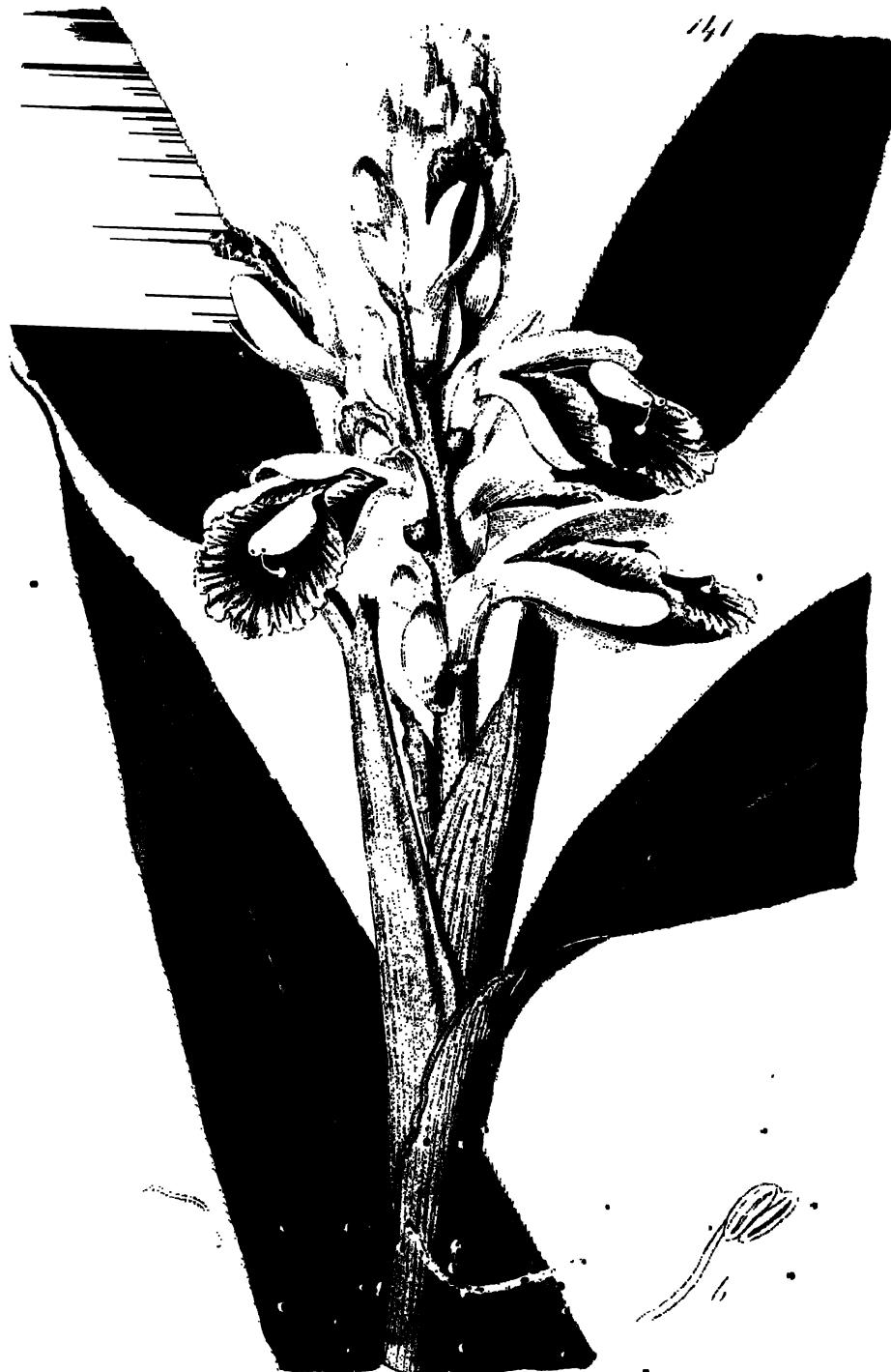
A species recently introduced into this country, and not recorded in the last Hortus Kewensis; but which appears

to have been known for some time in the collections of France, Germany, and Italy. Its historians are not, however, unanimous concerning the place of its origin; some state it to be from the Isle of France, others from South America. Mr. Anderson, who superintends the Apothecaries' garden at Chelsea, informs us, that it was first raised in this country by himself from seed received from a garden in Germany.

A branching upright shrub, reaching with us the height of five or six feet, clothed by a shaggy viscid pubescence intermixed with scattered spines, more numerous at the nerves of the foliage; when smelled near of a disagreeable odour, somewhat like that of weeds from a muddy pond; a smell we have perceived also in the flower of *ILLICIUM floridanum*. *Leaves* 6 inches or more in length, oblong, sinuately pinnatifid, lateral lobes repandly dentate or entire, terminal lobe largest angular ovate, and cut into lobules: *petioles* half stem-embracing, decurrent. *Racemes* terminal and lateral, half a foot long, many-flowered with flowers pointing the same way in two ranks, from revolute straightening as the bloom evolves itself in succession; two or three primary flowers fertile, the others sterile, having an incomplete pistil. *Calyx* stellately campanulate, viscidly pubescent within and without, armed in the fertile flower. *Corolla* white, glittering, and subdiaphanous, regular, about an inch and half across. *Stamens* equal, nearly three times shorter than the corolla: *anthers* twice longer than the filaments. *Style* clavately filiform; *stigma* oblong, ovate, green, subdidymously lobed. *Berry* of an orange-colour, about the size of a cherry, said to be eatable.

The drawing was made in the fine collection at Mr. Vere's, Kensington Gore; where it is kept in the bark-bed of the stove. Jacquin speaks of it as a greenhouse plant.

a The calyx. *b* The stamens, as they appear when the corolla is dissected and unfolded. *c* The pistil.



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Bot. Mus. J. K. Galbraith 1701. Rec. of Fl. Sept 1 1886

Smith L.

ALPINIA calcarata.

Upright flowering Alpinia.

MONANDRIA MONOGYNIA.

*Nat. ord. CANNÆ. Jussieu gen. 62.**SCITAMINEÆ. Brown prod. 305.*

ALPINIA. Cal. superus, tubulosus, brevior, ore subtrilobo. Cor. tubulosa limbo duplice; exteriore tripartito subæquali: interiore dissimili, inter laterales exteriorum inserto, unilabiato basi utrinque denticulo aucto. Stamen fauci intra laciniam anticam exteriorum insertum. Filamentum lineare extra antheram non elongatum. Anthera filamento adnata, biloba lobis distinctis, parallelis, bilocularibus, per axim longitudinalem dehiscentibus, suturæ marginibus inflexis dissepimento, demum obsolecto, insertis. Pollen globosum, lœve. Corpuscula 2 (stamina sterilia) parva teretiuscula basin styli stipantia. Germ. 3-loc. loculis polyspermis, ovis angulo interno gemino ordine affixis. Stylus filiformis longitudine filamenti in sulco antheræ receptus. Stig. dilatatum cavum, obsoletè 3-gonum. Caps. 3-loc., 3-valv., polysperma; carnosæ. Sem. subrotunda, mutuò pressione angulata, arillata. Inflo. paniculata v. laxè racemosa, caulem terminans.

Herbæ aromaticæ. Radix perennis scapiùs tuberosa, repens. Caulis simplex. Folia simplicia, 1-nervia, venis acutangulis, crenatissimis; petiolo vaginanti, vaginâ hinc fissili, orâ indè ligulam (Graminearum instar) productâ. Bractæ communes caducæ; partiales spathaceæ, cucullatæ. Brown loc. cit. 305, 306. (Excerptum è charactere ordinis).

A. calcarata, nectario ovato-oblongo apice semibifido, foliis ensiformibus, capsula hirta. Roscoe in linn. soc. transact. 8. 347. Hort. Kew. ed. 2. 1. 5.

Renealmia calcarata. Audreys's reposit. 421.

Globba erecta. Redouté lilac. 174.

Radix fibrosa, repens, caules plures, pedales, teretes, superne versùs pubescentes, crassitudine digiti minoris. Foliorum lamina angustius lanceolata, plana. Inflorescentia erecta, composito-racemosa; pedunculis 2-3-floris. Bractæ partiales subdiaphanaæ, albicantes. Flores albo, luteo, et funiceo vari. (Ex Redoutæo.)

The *Scitamineæ* of Linnaeus correspond with the *Cannæ* of Jussieu. From the last Mr. Brown has drafted a portion of the genera, and collected them into a separate order, to which he restores the appellation of *Scitamineæ*, prefixing that of *Cannæ*, to the small assemblage which is left. The first he characterizes by the aroma inherent in the plants which compose it, an interior and exterior co-

rolla, single stamen, anther with two lobes, and seeds having a *vitellus*, a multiform variable viscus of far less frequent occurrence than any of the others which belong to seeds; usually situated between the rudiment of the future plant and the albumen, from which, however, as well as the cotyledon, Mr. Brown thinks with Gaertner, that it is essentially distinct, notwithstanding the contrary opinion of some others. That of the *Canneæ*, which agrees in most points with the preceding, he has distinguished by an anther with one lobe only, a seed without the *vitellus*, and by the want of aroma, or by that which they have being very feeble.

Mr. Edwards was favoured with the specimen from which the drawing was taken by Lord Caernarvon, who had the kindness to send it from his seat at Highclere in Hampshire, in June last. As we had no opportunity of seeing the blossom after the drawing was made, we shall not attempt its description.

The species was introduced in 1804, by Mr. Aylmer Bourke Lambert, from the East Indies, where it had been discovered by Dr. William Roxburgh. Like the whole order it requires to be kept in the hot-house; and is propagated by parting the root.

a The pistil. *b* Stamens.



W. Edwards del.

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SEDUM ternatum.
Three-leaved american Stone-crop.

DECANDRIA PENTAGYNYA.

Nat. ord. SEMPERVIVAE. Jussieu gen. 207.

SEDUM. Cal. inferus, 5-partitus. Pet. 5, imo calyci inserta, calycinis divisuris numero æqualia et iisdem alterna. Stam. dupla quorum alterna petalorum unguis inserta, alterna imo calyci: antr. subrotundæ. Germina petalis numero æqualia, basi interiori juncta, exteriori glandulosa glandulis squamiformibus; stylus et stigmata totidem. Caps. totidem, 1-loc., polyspermæ, intus bivalves, marginibus valvarum semi-niferis. Herba succulentæ; folia alterna, plana aut teretia; flores corymbosi, axillares et sæpius terminales. Jussieu gen. 307.

S. ternatum, pumilum, repens; foliis planis rotundo-spathulatis ternis, cyma subtristachya, floribus sessilibus, octandris, centro decandro. *Pursh amer. sept.* 1. 324.

• *Sedum ternatum*. *Michaux bor. amer.* 1. 277. *Persoon syn.* 1. 512. *Hort. Kew. ed.* 2. 3. 112.

Sedum deficiens. *Donn cant. ed.* 6. 126.

Sedum octagon. *Hortulanis*.

Sedum americanum. *Herb. Banks*.

Sedum annuum caule compresso, foliis obversè ovatis. *Gron. virg. ed.* 2. 71.

Sedum saxatile floribus albis, foliis succulentis subrotundis, caule rubente.

Clayt. Herb. n. 891.

Anacampseros ternata. *Haworth succ.* 114.

Herba perennis cæspitosa: caules stricti, foliati, floriferi sub 4-unciales, pruinosi, subrubentes. Folia caulinæ plana, crassa, tenuo-verticillata, verticillat-decussatis, glabra, semuncialia v. infrâ ad uncialia v. suprà; floralia ovali-lanceolata. Inflorescentia terminalis, numerosa, sæpius trifurco-tristachya flore solitario in centro trifurcationis; spicæ recurvo-divergentes, alterno-secundæ, foliatae, foliis pone spicam alternantibus cum floribus. Cal. herbaceus, 4-partitus, segmentis lineari-oblongis, obcisis, obtusiusculis, corollâ $\frac{1}{3}$ -parte brevior. Cor. alba, 4-partita, semunciam transversa, stellata, lacinia angustius lancolatis, acuminatis, canaliculatis. Stam. 8, $\frac{1}{3}$ breviora corollâ, equantia pisilla: antr. erectæ, sagittato-ovata, rubido-brunneæ. Germ. 4, alba, erecto-stellata, oblonga, attenuata, intus suturâ marginata et basi rimâ labris tumidiusculis prominentioribus hulca: stylus brevis continuo subulatus: stig. punctum acutum. Squamæ hypogynæ minutæ denud lutescentes, oblongo-quadratae, subdenti-

The species was recorded in the Flora virginica of Gronovius (1743), but seems to have missed its place in all subsequent enumerations of plants, until Michaux's work appeared (1803), in which it stands under the present name.

A native of North America, where it is found on rocks in the western parts of Pennsylvania, Virginia, and Carolina. We know of no figure of it; although one of the handsomest and fittest plants for covering walls or rock-work of any in our gardens; into which it was first introduced by Sir Joseph Banks in 1789. Begins to flower in June, and continues to do so abundantly for a considerable time.

Soon forms a large close tuft, with stems about four inches high. *Leaves* flat, succulent, thick, in whorls of three each decussating the one the other at small distances, from half an inch to more than an inch in length, those on the stem which do not belong to the inflorescence, obovately spatulate, or with a roundish blade narrowed downwards, those more immediately connected with the inflorescence alternate, much narrower, oval lanceolate. *Flowers*, terminal, octandrous, generally in three many-flowered spikes, deriving from the same point at the summit of the stem, and having a single decandrous flower seated at their confluence, recurvedly divergent, leafy, with flowers pointing inwards, and alternating with the floral leaves, the upper ones of which are disposed in a double row behind them. *Calyx* herbaceous, 4-parted, with thick linear oblong bluntish segments. *Corolla* white, 4-parted, about half an inch across, stellate, with narrow lanceolate chauncelled divisions. *Stamens* 8, a third shorter than the corolla: *anthers* reddish brown. *Germens* 4, white, stellate, oblong-acuminata, with a suture along the inner margin, more prominent and partly dehiscent towards the base. *Hypogynous scales* minute, oblong, squared, becoming yellow.

The drawing was made from a plant at the nursery of Messrs Lee and Kennedy, at Hammersmith. A hardy plant, requiring the common treatment of the other sorts.



PROSTANTHERA lasianthos.

Villous-flowered Prostanthera.

DIDYNAMIA GYMNOSPERMIA.

Nat. ord. LABIATÆ. *Jussieu gen.* 110. *Div. IV.* Stamina 4 fertilia. Cor. bilabiata. Cal. bilabiatus.

LABIATÆ. *Brown prod.* 499. *Div. II.* Stam. 4 fertilia antheris omnium v. duorum completis. *Subdiv.* B. Cal. bilabiatus.

PROSTANTHERA. Cal. tubulosus, bilabiatus, fructus clausus, tubo striato, labiis indivisis, obtusis. Cor. 1-petala, hypogyna, tubulosa, ringens. *Labium superius* galeatum semibifidum, aestivatione equitans *inferius* 3-fidum laciniâ media majore, bilobâ. *Filamenta* sub sinibus labii inferioris interlabialibusque inserta. *Anth.* bilobâ (omnes completæ) subtus calcaratae. *Germ.* 4, monosperma, basi mediante stylo commixa, disco glanduloso incidentia et infra cincta, ovis erectis. *Stylus* 1, à receptaculo ortus. *Stigma* bifidum. *Nem.* (Cariopsides.) 4, calyce persistente fecondita. *Embryo* erectus; *Cotyledones* planæ.

• *Frutices caule 4-angulo, ramis oppositis, glandulis sessilibus conspersi graveolentes.* Folia opposita, exstipulata, simplicia, plerumque dentata v. crenata, petiolis basibusque cum ramo inarticulatis. Flores v. racemos terminales, bracteis subtendentibus caducis, v. axillares solitarii: Pedunculus omnium juxta apicem bibracteatus. Calycis labium inferius nunc relatum. Antherarum calcaria è punto insertionis orta, in diversis diversa, sepiùs bina per lobos respondentes descendenter, usque infra adnata, altero brevior, quandoque deficiente, utriusque apice cristato. Cariopsides mucronatae, subbaccatae. Albumen nulum v. parcum. Brown prod. 499, et 508.

P. lasianthos, foliis lanceolatis dentato-serratis glabris, racemis paniculatis, corollis utrinque hirsutis calcare longiore lobum bis superante. Brown loc. cit. 508.

Prostanthera lasianthos. *Labill. nov. holl.* 2. 18. t. 157. *Hort. Kew.* ed. 2. 3. 426. *

Exutex statuā nunc penè arboreā, erectus; ramj decussato-potentes, ad foliorum intervalla fucibus alternis utrinque sulcati. Folia decussato-distantia, petiolaria, brevius petiolata, oblongo-lanceolata, acuta, glabra, subtilis nervosa, remotius et brevè serrata, firmula. Flores bdsamkè odorati, in summos ramos foligso-paniculati, composito-racemosi; racemulis decussato-axillaribus terminatisque, plurifloris; pedicellis unifloris decussatis brevioribus corollâ, bracteola qd basin aliisque 2 oppositis angustis paulò infra calycem stipati. Cor. subsemuncialis, allucans, turpato-ringens, infra tubum purpureo-punctata; fauax lanata; labium summum obcordato-rotundum, brevè fissum, inum longius, deflexum, crispum, 3-lobum lobo medio majore subrotundâ apice angulatum exciso maculâ rubrâ didymâ od busin. Stylus æquans galbum. Anth. violaceo-cærulæcentes.

Native of Van Diemen's Island and New South Wales, where it forms a tall upright shrub of the height of fifteen feet. In bloom it has a very lively appearance. The flowers expand in rapid succession, and are quickly shed. *Their scent is balsamic and not unpleasant.*

Branches, foliage, general and partial racemes as well as pedicles uniformly decussated and patent. Leaves substantial, shortly petioled, oblong-lanceolate, pointed, smooth, nerved beneath, shallowly and distantly serrate. Inflorescence of composite racemes, disposed at the end of the branches in a broad pyramidal panicle; partial racemes terminal and axillary, of several flowers, pedicles shorter than the corolla, with a small bracte at their base, and two narrow subulate opposite ones just below the calyx. Calyx green, bilabiate, closing over the germen when the corolla falls off, tube striate, lips entire. Corolla about half an inch long, whitish, pubescent on both sides, tubular, turbinate, ringent, dotted with purple inside the tube; upper lip vaulted, obcordately rounded, shallowly bifid, lapping over the lower previous to expansion, the latter longer, deflectent, trifid, undulate at the edge, with a larger two-lobed middle segment having a double red spot at its base. Anthers two-lobed, all of them perfect, with a spur from the lower side of each lobe, that of one lobe twice the length or more of that of the other. Stigma bifid. Cariopsides (see explanation of this term in fol. 87) 4, like nuts, with a somewhat berried or fleshy thickened exterior coat.

The generic name has been compounded by M. Labillardière of $\pi\gamma\sigma\theta\eta\eta$ and $\alpha\pi\beta\gamma\beta\alpha$, in allusion to the appendages to the lobes of the anthers. No drawing has yet been published from a living plant. Mr. Edwards has been enabled to make the present by the favour of Lady Aylesford, in whose collection at Stanmore the specimen flowered this summer.

A greenhouse plant, introduced by Mr. Aylmer Bourke Lambert in 1898. We have not yet met with it in any of the nurseries near London.

a Calyx. *b* Corolla dissected. *c* A stamen magnified to show the anther and the two different sized spurs. *d* Pistil.



PASSIFLORA minima.

Curassoa Passionflower.

MONADELPIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in Annales du Muséum. 6. 102.
PASSIFLORA. Suprà vol. 1. fol. 13.

P. minima, foliis trilobis glabris, lobis lanceolatis intermedio longiore, petiolis biglandulosis, pedunculis geminis longitudine petoli, floribus apetalis, caule basi suberoso. *Willd. sp. pl. 3. C. 6.*

Passiflora minima. *Linn. sp. pl. 2. 1359. Annu. acad. 1. 229. t. 10. fig. 19. Swartz obs. 338. Jucq. hort. 1. 20. Cavan. aiss. 10. 144. t. 266. Hort. Kew. 3. 309. ed. 2. 4. 151. Miss Lister. passiogl.*

Passiflora hederafolia. 2. *Lambeck encyc. 3. 38. n. 22; (sub Grenadille).*

P. foliis nitidis trilobis, medio angusto longiori, lateralibus quandoque auritis, fructu misere nitido baccato. *Brev. jun. 328.*

Caulis teres, glaber, 10-pedalis v. ultrà, suffruticosus, deorsum suberoso-corticatus. **Folia** alterne distans, saturate viridia, subcordato-triloba, 5-nervia, maximum 2 unius cum divisione longa, lobis integris acutis medio oblongo-lanceolato majore, lateralibus divaricatis, basi petollo et margine villosula; petiolus semuncialis v. ultrà paolo infra laminam purpureo-biglandulosus. **Stipulae** parvae, subulatae. **Cirri** intrapetiolares. **Pedicelli** axillares, saepius gemini, uniflori, aquales, petiolo at plurimum graciliores, subpubescentes, laxi, suprà medium crassiores et articulati. **Involverum** O. **Flores** pareuli, lateo-virientes, fragantes, nutantes. **Cal.** viridis, firmulus, 5-fidus, patens, extus atro-purpurascens subdecemradiatus, tuberulo prominulo acutulo ad pedem singulæ divisione posito, sinus externe convexus brevis et non intrusus, lacinie ovato-oblongæ, obtusæ. **Cor.** O. **Corona** duplex, bis brevior calyce; radii extimi filiformes, obtusi, plurimi, proximi sed non contigui, infra erecti asculi inde recurvi, virides apice flavi, intimi isdem subalterni, duplo breviores et graciliores capitato-dilatati vel clavati, virides; operculum violaceum planum plicatum. **Columna** calycem subcaedens. **Fil.** subulata; anta brevis, oblongo-rotunda. **polline** flavo. **Gemma** globosum, glabrum, viride; **styli** cum stigmatibus capitato-clavati, divaricati. **Bacca** sphaerica, violacea, glabra parva, vix piso major.

The present species is among the oldest which inhabit the hothouses; having been introduced by Mr. Bentinck (afterwards Lord Portland) in 1690. Native of the dutch West India Island, Curaçao, and according to Swartz of Jamaica. Very nearly akin to *suberosa*, but has a foliage more distinctly lobed, with the two narrower lobes divaricately elongated; a suffrutescent stem, which is corky and cracked in stripes at the base only, and a smaller blossom;

altho' not the smallest of its genus as its specific name would imply.

Stem climbing, seldom exceeding ten feet. *Leaves* distant, dark green, subcordately-threec-lobed, five-nerved, largest about two inches long, side lobes narrowest and far divergent from the middle one, slightly villous at the base and margin, but more conspicuously so at the *petiole*, which is about half an inch long, with two small purple opposite glands just below the blade. *Stipules* small, subulate. *Pedicels* one-flowered axillary, generally in pairs, subpubescent, as long as the petiole but much slenderer, flexile, jointed and thicker about the middle: *involucre* none. *Flowers* small, of a yellowish green, fragrant, nutant. *Calyx* firm, patent, purplish-black beneath, and marked with ten radiant streaks, base shallow convex, not dinted, a small pointed *tuberete* at the fork of each division of the limb, segments ovate oblong, obtuse. *Corolla* none. *Crown* double, twice shorter than the calyx; external rays filiform, obtuse, many, near, but not contiguous, upright and green below, recurved and yellow above; *inner* alternating with these, twice as short and twice as slender, capitately widened above; *operculum* plaited, of a violet colour. *Column* rather higher than the calyx. *Germen* globular, smooth, green. *Berry* spherical, nearly the size and colour of a black currant.

The drawing was made from a plant cultivated in the hothouse at the nursery of Messrs Whitley, Brames, and Milne, King's Road, Fulham.



Pl. 10. S. B. Agard 170. Knobell 147 1877

ŒNOTHERA odorata.

Curled-leaved Oenothera.

OCTANDRIA MONOGYNIA.

*Nat. ord. ONAGRÆ. Jussieu gen. 317.**Div. III. Stylus unicus. Fructus capsularis. Stamina petalorum dupla.*

ŒNOTHERA. *Cal. monophyllus: superus, longus cylindricus apice decidens cum limbo 4-partito. Pet. 4, summo calyci inserta, ejusdem laciniis alterna. Stam. ibidem inserta; anth. oblongæ incumbentes. Stigma 4-fidum. Caps. longa cylindrica sub4-gona 4loc. 4valv. polysperma, valvis medio septiferis, seminibus nudis numerosis angulatis receptaculo centrali affixis. Herba, quædum lignosa; folia alterna; flores solitarii axillares.* Jussieu gen. 319.

Œ. odorata, foliis linear-lanceolatis subdentatis undulatis, caule villoso suffruticoso. *Jacq. ic. rur. 3. t. 456.*

Œnothera odorata. *Jacq. coll. 5. 107. Willd. sp. pl. 2. 308.*

Œnothera undulata. *Hort. Kew. ed. 2. 2. 342.*

(α) caule, nervis foliorum, calyce, germineque rubentibus.

(β) caule, nervis foliorum, calyce, germineque virentibus.

Suffruticosa, perennis. *Caulis sesqui-bipinnatus de propè basin ramosus et foliatus [in plantis annotonis modò simplex]; rari nunc plurimi hirsutiùs illosi, ad hyemem usque procrescentes et flores successivè promentes.* Folia sparsa, distantia, sessilia, lanceolata, deorsum parùm angustata, sursum longè cuspidato-attenuata, utrinque villosa, lucido-virentia, undulata, præprimitus superiora floralia quæ basi ovata, inferiora modò explicata atque plana, denticulis paucissimis remotis callosis obscurius marginata, costâ mediâ cum nervis senis v. octonis longitudinalibus, longiora 3-4 uncialia, summa latiora modò parùm infra unciam basi transversa. Flores in summis foliis axillares, successivi, solitarii, sessiles, odorati, vesperè expandentes, manè croceo-emarginantes. Germ. sub-tetragonum, villosum, longius tubo calycino. Calyx villosus, sesquiuncialis; tubo recto tereti striato; limbo depresso $\frac{1}{4}$ parte ferè longiore; segmentis juxta infra apicem cornuto-mucronatis. Corolla lutea 2 uncias vel magis transversa; pet. lato-obcordata, emarginatâ profundâ et acutâ. Stam. $\frac{5}{6}$ parte breviora copollâ. Stigmata 3-plo breviora stylo.

The present species was first raised in Europe in 1790, from a collection of seeds made by the surgeon of a merchant-ship, at Port Desire (a harbour on the eastern coast of Patagonia, frequented by vessels on their passage to the Pacific Ocean). Sir Joseph Banks purchased the parcel which was brought home, and presented a part to Professor Jacquin; by whom our plant has been figured in the "Icones plantarum rariorum," and its history given in his

“*Collectanea* ;” where the native place is said to be on the banks of Champion river; a river unknown to Geography. Both the figure and history escaped the learned editors of the last edition of the *Hortus Kewensis*, until the species had appeared in that work under a new name, as unrecorded. The oversight was subsequently detected by Mr. Brown, and we now give the species by the prior appellation.

A tolerably hardy perennial plant, of the easiest cultivation, growing almost anywhere, and scattering the seed spontaneously, by which means a sufficient succession of young plants may be obtained without trouble. The stem never dies completely down, even in the open air, but in the greenhouse it is said to survive completely, and become an evergreen. Sometimes destroyed by very severe frost. Now very common in our gardens, and deservedly so, from the elegance and singularity of the foliage and fragrance of the bloom. This last expands about sunset, and fades at sunrise; and the branches continuing to grow in length thro’ the whole summer, till stopped by the frost, a long succession of flowers is kept up. *Stem* from one to two feet high or more, simple or numerously branched, leafy from near the foot to the summit, sometimes green, sometimes deep purple throughout. *Leaves* scattered, distant, sessile, lanceolate, far tapered, somewhat ovate at the base, slightly villous on both sides, not smooth as described in the *Hortus Kewensis*, upper ones conspicuously undulate, lower less so and sometimes quite flat, all of a deep shining green colour; sometimes with purple, sometimes with pale green nerves. *Flowers* yellow, solitary, sessile, axillary in the upper foliage. *Calyx* pale green or purplish, an inch and half long; tube a fourth shorter than the deflectent limb. *Petals*, when fully expanded, little less than two inches over, obcordate, deeply and sharply emarginate. *Germen* longer than the tube of the calyx; sometimes green, sometimes purple.

The drawing was made from a plant in the ~~Apothecaries’ Garden at Chelsea.~~

a. Seed-vessel before it becomes dry.



Plant of *Calypso* 1700 feet above the *moist* - *moist* soil

POGONIA ophioglossoides.
Adder's-tongue-leaved Pogonia.

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDÆ. Jussieu gen. 64. Brown prod. 309.

Div. III. Anthera terminalis, inserta, persistens. Massæ pollinis v. pulvæ v. è corpusculis angulatis: basi v. infra apicem. affixæ. Brown in Hort. Kew. ed. 2. 5. 201.

• **POGONIA.** *Labellum sessile, cucullatum, intus cristatum. Petala 5 distincta, eglandulosa. Pollen farinaceum. Brown in Hort. Kew. ed. 2. 5. 203.*

P. ophioglossoides, radice fibrosa, scapo dissitè bifoliato 1-2-floro, foliis ovali-lanceolatis, labello fimbriato. *Pursh amer. sept. 2. 590; (sub ARETHUSA).*

Arethusa ophioglossoides. *Linn. sp. pl. 2. 1346. Michaux bor. amer. 2. 159 Lamarck illustr. t. 729. f. 2; (de sicco). Willd. sp. pl. 4. 80.*

Arethusa radice fibrosa, scapi folio ovali, foliolo spathaceo lanceolato. *Gron. virg. ed. 2. 189.*

Cypripedium folio caulinò ovato-oblongo, terminali lanceolato plano. *Gron. virg. ed. 1. 110.*

Helleborine virginiana ophioglossi folio D. Banister. *Pluk. alm. 182. t. 93. f. 2.*

H. aquatica flore in summo caule unico carneo, barba purpurea fimbriata, foliis ophioglossi, radice fibrosa. *Clayt. MSS. n. 77.*

Radix crassè fibrosa, simplicior, rigida, horizontalis. **Caulis** erectus, simplex, bifoliatus, uncius 5 altus. **Folia** 2 semivaginanti-decurrentia, laminæ ovali-lanceolatæ 3-5-nervi, inferioris subsesquicunciali, superioris vix semunciali. **Flos** 1 (vix 2?) semuncialis, subtans 1 oblongo-semicampylatus, semiringens 5 pet. 5, dilutius lilacina, fornicate-ascendentia, isometra, 3 exteriora divergentia lineari-lanceolata duplo angustiora magis, concava, 2 interiora ob-ovato-oblonga sub summo medio imbricato-coniuncta. **Labellum** vix longius, panducato-ovovatum, fimbriæ brevi patente pectinato-incisæ transverse purpureo-striatæ barbatum, intus pilis densis supra æquatis inferne versus decrementibus cristatum, basi subvenitricosum. **Columna** transversè striata lineis purpureis, duplo brevior et appressa labello, semiclavata, dorso rotundata, facie plana, supra utrinque dentato-fissa lobulis contiguis, inferne complexa marginibus involutis unguis labelli. **Oberculum** antheræ untrorsum columnæ continuo-conneatum.

This singular little plant was introduced by Mr. Nuttall, to whom our collections are indebted for several of their rarest specimens. Native of North America, from Canada to Carolina, and grows in mossy bogs and swamps. Although well known in our books, and represented by two figures from dried spontaneous specimens; it has, we be-

lieve, never till now been introduced into any European garden, nor been represented anywhere from the living plant. Root perennial, fibrous, fibres thickish, simple, wiry, horizontal. Stem under six inches high, upright, simple, two-leaved, one-flowered. Leaves halfstem-embracing and decurrent, blade oval-lanceolate, three-nerved, that of the lower leaf an inch and half long, of the upper scarcely half an inch. Flower nutant, oblong, semicampanulate, semi-riggent, about half an inch long: petals 5, of a palish pink or lilac colour, ascendent, vaulted, of one length, *three outer ones* divergent, linear-lanceolate, concave, twice the narrowest or more; *inner two* obovately oblong, converging imbricately under the arch of the middle of the three outermost. Lip scarcely longer than these, obovate, somewhat contracted at the sides below the middle, bearded by a narrow pectinated purple streaked horizontal fringe round the front edge, beset within by a level-topped crest or comb of compact hairs, growing shorter as they descend inwards, unguis or narrow part somewhat tumid or enlarged at the base. Column twice shorter than the lip to which it is pressed down, semicylindrically clavate, streaked transversely by purple lines, rounded at the back, flat in front, clasped at the base by the inflected sides of the unguis or narrow portion of the lip, at the top dentately cleft on each side, lobules contiguous. Anther persistent. Pollen many. We had not an opportunity of examining the anther and stigma so completely as we wished.

The drawing was made at the nursery of Messrs. Collville, in the King's Road, Chelsea. The plant is most probably quite hardy; but in order to secure its flowering was planted in bog-earth, and the pot placed in a pan of water in the hothouse, as soon as the roots arrived from America. Without this treatment we should most likely not have been enabled to have procured the present figure of it.

a The outline of an artificially extended flower. *b* The column with the anther turned up out of its place of insertion.



Fig. 19. *Trifolium pratense* Linn. 1753.

POLYGALA speciosa.
Large-flowered Cape Milkwort.

DIADELPHIA OCTANDRIA

Nat. ord. PEDICULARES. Jussieu gen. 99.

Div. I. Stamina non didynama, 2 aut plura.

POLYGALA. Cal. 5-partitus, lacinis 2 longè majoribus alatiformibus sèpè coloratis. Cor. convoluta in tubum suprà fissum, limbo 2-labiatum, labio superiore bipartito fiso, inferiore concavo subtùs barbato aut imberbi, intus obtegente stamina in duas fasces collecta; anth. 1-loc. Stig. subbitidum. Caps. (Legumen biloculare) compressa, obcordata. Herba aut fruticosa; folia plerùmque alterna; flores 1-3-bracteolati, alterni, laxè aut dense spicati, terminales. Jussieu gen. 99.

P. speciosa, cristata, fruticosa, appendice duplii, racemis ebracteatis subterminalibus multifloris, foliis alternis oblongo-cuneatis glabris.

Curt. mag. 1780.

Polygala speciosa. Herb. Banks.

Frutex suborygialis, junceo-virgata, ramis novellis tumidiusculis. Folia sparsa, laxa, lineari-oblonga, angusta, subcuneata, sessilia, deorsum attenuata. Racemi terminales, laxè spicati, crecti, multiflori, rachide interrupètè angulosò, pedicellis 1-floribus, 3-plo brevioribus flore, lanuginosis, flexilibus, decurvis, basi ciuctis bracteolis 2-3 dividitis. Flores 3 partes uncia longi, penauli, violaceo-purpurascentes. Cal. segmentis tribus duris livido-virentibus obtusissimis, 3-plo brevioribus lateralibus 2 amplis alatiformibus coloratis saltato-rotundis. Cor. subtripetala, bilabiata; labium supremum vexillum bipetali-num tubuloso-convolutum, parùm longius segmento supremo calycis, incumbens parte imà interiori carine; infimum carina monopetala follicularis, alia calycinis sublongior, fulcata, compressa, assurgens flexurâ ventricosâ, acuminata, fissurâ internâ ventrali lubris villosus arctè conniventibus, subtùs infra apicem educens cristam amplum bipartitam decompositam multifidam concolo porrectum. Stam. inferne tubuloso-monadelpha fissurâ verticali collata, unde distingfa: anth. erectæ, filamentorum subclavata-continuæ, 1-loculares, suburnato-cylindrica, apice dehiscentes ore oblique revolutum marginato hinc lanceolato-appendiculato: pollen subfluido-grumosum, aureum, splendens. Germ. parvulum, compressum, obcordatum glabrum, biloc., loculis 1-spermis: stylus subsusiformis, rigidus, robustus, de medio arrecto-inflexus, indèque rosco-pubescentis, in frâ attenuatus, è punto gracili insertus germini, latere interiori barbatus: stigma hamatum, antice pubescens et rima longitudinalis incisum.

The finest species known of the genus; recently introduced into our gardens, and not incorporated in any systematic arrangement of vegetables. Native of the Cape of Good Hope, where specimens have been collected by the late Mr. Masson, and deposited in Sir Joseph Banks's Herbarium by the name we have adopted.

A greenhouse shrub, growing to the height of six or seven feet, perhaps higher, branching upwards with numerous rushy twigs, generally thickened or swollen towards the end, altogether reminding us of those of the Spanish Broom. *Leaves* scattered, rather distant, linear-oblong, narrow, somewhat cuneate, with a small point, sessile, tapered downwards. *Racemes* terminal, spiked, loosely flowered, upright; *rachis*, or general stalk, interruptedly angular; *pedicels* one-flowered, three times shorter than the corolla, downy, bending; *bractes* 2 or 3 at the base of each, minute, deciduous. *Flowers* large, about 3 parts of an inch long, of a violet-purple colour, but when dried fading to a pale rose or flesh colour. *Calyx* with 3 hard round-pointed segments of a livid green, three times shorter than the two larger petal-like ones of the sides, which are round and coloured. *Corolla* of 3 petals, bilabiate; *upper lip* a small vexillum or standard of two petals rolled together into a tube, but little longer than the upper segment of the calyx and resting upon the lower portion of the keel or under petal; *under lip* a keel or carina of one petal, foliaceous, rather longer than the wings of the calyx, falcate, compressed, ventricose at the bend, acuminate, edges of the fissure ciliate and connivent, bearing beneath from below the apex a large bipartite decompoundedly multifid crest of its own colour and projecting horizontally; a part when inspected through a magnifier of great beauty. *Stamens* tubularly connate below, with a ciliated fissure above: *anthers* upright, continuous with the filaments, one-celled, cylindric, opening by an urn-like orifice, revolute at the edge, and projecting a lanceolate appendicle from the under part; *pollen* grumous, of a shining yellow colour like the shell-gold used for painting in water-colours. *Style* fusiform, rigid, bent upwards. *Stigma* hooked. *Cells* of the germs one-seeded.

The drawing was taken from a plant in the collection of Mr. Griffin, at South Lambeth; by whom we understand the species was introduced. We also received a specimen from Messrs. Lee and Kennedy, of the Hammersmith nursery. As yet a rare plant.

a The calyx, showing the two alate or petal-like segments. *b* The stamen. *c* The superincumbent vexillum of two petals. *c* The pistil. *d* The carina, bot, or keel.



PASSIFLORA *incarnata*. B.

Flesh-coloured Passionflower; with purplish fruit.

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in Annales du Muséum. 6. 102.
PASSIFLORA. Suprà vol. 1. fol. 13.

P. incarnata, foliis trilobis serratis, lobis oblongis acutis, petiolis bi-glandulosis, involucro triphylo, foliolis lanceolatis glanduloso-dentatis, filis coronæ corollâ longioribus. *Willd. sp. pl. 3. 621.*

Passiflora incarnata. *Linn. sp. pl. 2. 1360. Aman. acad. 1. 230. n. 19. t. 10. fig. 19. A. B. C. D. E. Mill. dict. ed. 8. n. 1. Lamarck encyc. 3. 40. Walt. carol. 223. Miss Lawr. passionfl. Hort. Kew. 3. 310. ed. 2. 4. 153. Michaux bor-amer. 2. 37. Pursh amer. sept. 2. 445. Barton's elem. of bot. ed. Loud. cum tab. (Omissis passim synonymis Jacquinii et Cavanillesii, que aut non hujus loci aut confusa).*

Passiflora foliis trilobis. *Gron. virg. ed. 2. 140; (ex specimine archetypo apud Herb. Clayt. in Mus. Banks.).*

P. foliis crenatis tripartito-divisis. Plak. alm. 281.

Granadilla folio tricuspidate, latè scandens, flore amplio specioso purpureo alboque variegato, fructu magno ovato. *Fructus à nonnullis inter edulia habetur. Clayt. n. 151.*

Granadilla hispanis, Flos Passionis italis. *Hern. mex. 888. t. 890.*

Granadiglia overo Fior della Passione. *Tab. an. Napoli 30. oct. 1622.*

Fra Donato d'Eremità. (*A single plate in Sir Joseph Banks's Library.*)

Clematis trifolia s. Flos passionalis, flore viridi. *Moris. hist. 2. 6. sect. 1. t. 1. fig. 9.*

Balsamina indica repens triphylla s. folio hastato. *Ambr. phyt. 89. t. 90.*

Murucuja maliformis alia. *Marcg. bras. 71. t. 71.*

Maracoc s. Clematis Virginiana. *Park. parad. 393. t. 393. fig. 5.*

Maracot indicum. *Hort. farnes. 49. t. 50, 52.*

Vera e natural effigie della pianta indiana chiamata Maraco, Granadilla, e fior della Passione D. N. S. (Tobia Aldini. Venetia a di 28 luglio. 1620). *Single plate in Sir J. Banks's Library.*

Vera et ad vivum expressa effigies folii et floris plantæ Maracò vulgo nominatae Flos Passionis; qualis floruit horto Joannis Robini botanici regii mensibus Augusto et Septembri 1612 & 1613. (*A single plate in Sir Joseph Banks's Library.*)

(a) foliis vagè et ad nervos subvillosis; germine villosi; bacca viridi-lutea.

(b) foliis nudiusculis; germine glabro; bacca livido-purpurascens.

Frutex dñe et latè scandens, ramis floriferis herbaccis fistulosis angustosis, modò subvillosis. Folia profundius triloba, basi subcordata, orâ brevissimè deflexa; lucido-virentia, modò subvillosa, lobis oblongo-ovatis acutis serratis dentibus apice decurvis et glanduloso-incrassatis, medio latiore ellip-

rico: petioli supra canaliculati, juxta infra laminam biglandulosi. Stipulae parvae, linearis-subulatae. Cirri longiores foliis. Flores axillares, solitarii, pedunculo triquetro breviore foliis. Involucrum parum distans flore, triphyllum, æquale, connivens, vix attingens ultra tubum calycis; foliola rhomboeovata, lanceolata, glauco-duloso-serrata. Cal. sesquicircum longus, crassus, spongiosus, fundo extus profundè intrusus, inferne pro $\frac{1}{3}$ parte campanulato-tubulosus, indè 5-partitus, rotatus, segmentis oblongis intus albicantibus planis, extus virentibus carinatis, carinâ altâ mucrone falcato terminata. Pet. tubo calycis imposita, parum breviore at plurimum angustiora et tenuiora ejusdem segmentis. Corona multiplex, conferta, crispa; radii gradatim ab interne brevissimis papilliformibus et numerosis ad externè calycem æquantibus, in orbem patentissimi, setacco-siliformes, flexuosi, violaceo et albo varii. Operculum plicatum, violaceum, incumbens septo ascende nectarii. Nectararium album, tubulosum, subbicameratum, septo medio incomplete deflexo. Columna inclusa, violaceo-maculata. Germ. viride, ovale, glabrum, exsulcum. Anth. viridi-luteæ. Styli clavati, stigmatibus continua subdilatato-capitatis, obliquis pruinosis. Bacca (v. *Pepo*) sordide v. livide purpurascens (nunc flavescens), formâ serè et magnitudine ovi columbini vel modo globosa et pene duplo major, pulpâ luteo-virescente: sem. atropurpurea.

This is the first species of the genus which was introduced into Europe, and has suggested the generic name. The plant was originally discovered by the Spaniards, who called it, like the other sorts *Granadilla*, from a resemblance they conceived the fruit to bear to that of the common Pomegranate. But on its appearance in Italy, which seems to have occurred in the commencement of the 17th century, superstition descried in the configuration of the different parts a mysterious representation of the Passion of Christ, and the priests strove to turn the new vegetable prodigy to account. The leaf, as is well known, was expounded to be the spear which pierced the side, the twined threads of red and white which form the crown of the flower the lashes of the whip tinged with blood, the five encircling stems the crown of thorns, the column in the centre of the flower a miniature of that, which served in the flagellation, the three clavate stigmas the three nails used in the crucifixion. The plant was pronounced a miraculous emblem of those sufferings, and received the sanctimonious title of *Fior della Passione*, or *Flos Passionis*, afterwards combined by Linnæus into the technical name of *PASSIFLORA*. Figures of it were manufactured for devotional purposes, and made up of crude representations of the instruments themselves, instead of their presumptive symbols. An image of this kind has been placed at the side of that of the natural vegetable by Parkinson, an old English botanist, whose orthodoxy is much affronted by this monkish device, which he charges, according to the humour of his day, to the Jesuits.



Pelargonium J. C. Riddell Nov 1816. — J. C. Riddell

CRYPTARRHENA lunata.

Crescent-lipped Cryptarrhena.

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDÆ. *Jussieu gen.* 64. *Brown prod.* 309.*Div. IV.* *Authera terminalis* mobilis decidua. *Massæ pollinis* demum cereaceæ. *Brown in Hort. Kew. ed. 2. 5.* 205.*CRYPTARRHENA.* *Petala 5,* distincta patentia. *Labellum* ecalcaratum: *lamina* dilatata explanata. *Columna* libera, aptera. *Authera* apice cucullato columnæ inclusa, porrecto-adscendens. *Massæ pollinis* quatuor. *Brown MSS.**Cryptarrhena lunata.* Brown MSS.

Herba humilis. *Folia radicalia numerosa, multifariam ambientia, patentia, crassiuscula, carnosa, remotius nervosa, exteriora recumbentia, subovali-lanceolata, acuminata, subtriangularia, late virentia, interiora creciora, linear-lanceolata.* *Caulis longior istis, striato-teres, crassitudine pennæ corvinæ, inferne foliolis paucis linear-subulatis erectis vagè stipatus.* *Spica subtriangularis, inclinata, laxius digesta, nuda.* *Flores viridi-lutei, vix tertiam partem uncia transversi.*

We had not the opportunity of inspecting the flower of this plant after the drawing was made; but to the greater advantage of Botany, Mr. Brown has had that opportunity. He has found it an unrecorded vegetable, and to possess features so distinct from those already known of the tribe, as to make it expedient that it should form the foundation of a new generic group.

All we know of its history is, that it was lately received by Messrs. Lee and Kennedy, of the Hammersmith nursery, from Jamaica, and that it flowered in one of their hothouses in the course of last summer.

A humble herbaceous species; and, judging by analogy, probably parasitic. *Leaves* radical, numerous, ambient, multifariously patent, fleshy, thickish, loosely nerved; of a bright grass-green colour: outer recumbent broadest, lanceolate, and somewhat ovate, acuminate, three parts of an inch across, almost three inches in length; inner more

right, linear-lanceolate. Stem higher than these, *simple, round, angularly striate, bearing a few linearly subulate leaflets, placed irregularly towards its base. Spike* many-flowered, loose, bent. *Corolla* hardly the third of an inch over, green and yellow; and, as we are told, having scarcely any scent.

a The outline of the front view of a magnified flower, with the lid of the anther forced back, showing the loculaments. *b* The outline of a magnified flower viewed sideways, showing the cowled part of the column which covers the anther.



VALERIANA Cornucopiæ.

Purple Valerian.

TRIANDRIA MONOGYNIA.

*Nat. ord. DIPSACEÆ. Jussieu gen. 194.**Div. II. Flores distincti.*

VALERIANA. *Cal. simplex superus 5-6-(3-4)-dentatus, aut marginatus subinteger maturatione in pappum plumosum evolvendus. Cor. tubulosa basi calcarata aut gibba, limbo 5-fido æquali aut rariùs inæquali. Stami sèpè 3, rariùs 1-2 aut 4. Stig. 1-3. Sem. papposum, aut capsula 2-3-loc. 2-3-sperma (modò loculamento 1 fertili) apice nuda aut calycinis dentibus coronata. Caulis herbaceus. Folia opposita. Flores plerùmque corymbosi terminales.* Jussieu l. c. 195.

V. Cornucopiæ. (diandra, irregularis;) foliis ovatis nervosis, radicalibus spathulatis, caulinis sessilibus. *Vahl enum.* 2. 19; (*sub FEDIA*).

Valeriana Cornucopiæ. *Linn. sp. pl.* 1. 144. *Mill. dict. ed. 8.* n. 12. *Desfont. atl.* 1. 29. *Hort. Kew.* 1. 51. *ed. 2.* 1. 76. *Fl. græca.* 1. 23. t. 32. *Lamarck encyc.* 8. 312.

Fedia incrassata. *Mænch meth.* 486.

Fedia Cornucopiæ. *Gaertn. sem.* 2. 37. t. 86. f. 3. *Vahl loc. cit.* *Lam. et Decand. fl. franc.* 4. 246.

Valerianella cornucopioides. *Rivin. monop.* t. 5.

Valerianella cornucopioides, flore galeato. *Tournef. Inst.* 133.

Pseudo-valeriana cornucopioides annua purpurea. *Moris. hist.* 3. s. 7. 104. t. 16. fig. 27.

Valeriana indica. *Clus. hist.* 2. 54.

Radix fusiformis. *Caulis ramosissimus, patens, teres, glaber, carnosus, foliosus.* *Folia opposita, subcarnosa, lævia, ovalo-oblonga, obtusa, busi imprimis dentata; inferiora petiolata; superiora subsessilia, basi angustata.* *Cymæ terminales, subtrichotomæ.* *Pedunculi incrassati, carnosæ.* *Bractæ imbricatae, lanceolatae, ciliatae.* *Flores erecti, rosei.* *Cal. superus, bipartitus; laciniis patentibus, ovatis, acutis, persistentibus.* *Corollæ tubus gracilis, genitulatus, subibus brevissimè calcaratus; lipibus bilabialis; 5-fidus, labio inferiore basi pallido, trilineato.* *Stamina 2, erecta, exserta, longitudine serè limbi: anth. cærulæ.* *Stylus longitudine staminum.* *Stigma bifidum.* *Caps. elliptica, ventricosa, 3-locularis, calyce coronata:* *sem. solitaria, oblonga.* *Smith in Flor. græc. ad loc. cit.*

A genus consisting of species naturally connected in respect of their general features, yet curiously inconstant in the form and numbers of the parts of both flower and fruit, and consequently not easily framed together by a technical character. Varics through the different species from with one to with 2, 3, and 5 stamens; from with a globular,

to with an emarginate or a trifid stigma; from with a nearly obsolete calyx, to with one deeply five-cleft; from with a spurred, to with a spurless tube; from with a regular, to with an irregular limb, from with no capsule, to with one that is thick and three-celled. It has been drafted by Gærtner, who has collected a portion of the species, into a separate genus, he calls *FEDIA*, to which our present plant belongs; but the alteration has not been adopted by Mr. Dryander, in the late edition of the *Hortus Kewensis*.

A hardy annual plant, not very common in our gardens, where, however, it has been cultivated ever since 1596. Native of the department of the Var in France, of Spain, Sicily, Greece, and Barbary. From three or four inches to a foot or more in height. *Root* fleshy, fusiform. *Stem* subdivided into many branches, patent, round, smooth, fleshy, leafy. *Leaves* opposite, somewhat fleshy, smooth, ovate-oblong, obtuse, indented, at the base principally; lower ones petioled; upper ones subsessile, narrowed at the base. *Cymes* terminal, subtrichotomous. *Peduncles* thickened, fleshy. *Bractes* imbricate, lanceolate, ciliate. *Flowers* upright, rose-coloured. *Calyx* superior, bipartite; with patent ovate, acute, persistent segments. *Tube* of the *corolla* slender, geniculate or kneed, very shortly spurred beneath; limb bilabiate, 5-cleft, with a pale lower lip marked with 3 lines. *Stamens* 2, upright, extruded, almost the length of the limb: *anthers* blue. *Style* the length of the stamens: *stigma* bifid. *Capsule* elliptical, ventricose, three-celled, crowned by the calyx: *seeds* solitary oblong.

The drawing was made from a plant in the collection of Lord Tankerville, at Walton-upon-Thames.

a An entire flower. *b* Pistil.



111. *Bletia* sp. (Whale's-molt)
Flowers and catkins. 1 ft. high. 11/18/16

Smith

UROPETALON glaucum.

Grey-leaved Uropetalon.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPNODELI. Jussieu gen. 51. Div. IV. Flores spicati. Radix bulbosa. Cor. sexpartita, basi staminifera.

ASPNODELEAE (includentes ASPARAGOS plerosque Jussieui). Brown prod. 274.

UROPETALON. ZUCCAGNIA. Bodin in Schrad. journ. für die bot. 1. 204. DIPCADI. Usteri ann. der botan. St. 2. 13. Inflor. scaposa, simplex, racemoso-spicata, bracteato-distincta. Cal. 0. Cor. infera, nutans, tubuloso-sexfida, limbo subduplici, lacinis 3 in includentibus intimas 3 crectiones seorsim conniventem, cunctis inferne conuatis variis solis intimis, extimis reflexis et saepius caudatis. Fil. adnata, inclusa: anth. verticales à medio affixae, introrsum versae. Stylus crassiusculus, tereti-3-gonus, trisulcus, ex 3 filiformibus solubilibus coarc-tatis. Caps. erecta, membranacea, elliptica, trilobato-trigona, lobis altè compressis, 3-loc., 3-valv., valvis septiferis margini internae utrinque seminiferis. Sem. numerosa, cunulata, complanata, testa nigra, nitida. Bulbus tunicatus. Bracteae simplices, membranose. Folia plura, crassiuscula, variè lorata, ambientia. Genus inter SCILLAM et ALBUCAM veniens; necnon hinc DRIMIÆ accedens.

U. glaucum, foliis lato-lanceolatis, erectis, scapo multò brevioribus; pedunculis longissimis. Burchell MSS.

Bulbus ovato-globosus. Folia plurima (septena circū) ! sesuncialia ad pedalia, 2-3-plo breviora scapo, basi convoluto-amplexa, erecta, lorato-oblonga, lanceolata, ac tota planta glauca, plana, exteriora latiora latere utroque subreflexa, interiora angustiora cuspidata. Scapus erectus, parum flexuosus, 2-3-pedalis, crassitudine ferè pennæ scriptoræ majoris, terminus racemo spicatum educto, multifloro, irregulariè et remolè sparsò, patensim; pedunculis strictis, 1-floris, flore duplo longioribus magisve, suffultis bracteis linearis lanceolata sphacelata, erecto-patentibus ad divaricatos. Cor. viridi-fulvescens, externe glauco rore cauescens, unciam ferè profunda, tubuloso-campanulata, lacinis oblongis, obtusis, intus glabratissimis, ad medium usque conferruminatis, indè solutis, limbi extimi reflexo-patentibus extra apicem pugnacis internæ caudam edacentibus ipsis æquilongam crassam subulatam compressam, limbi intimi erectius conniventibus, patulis, ecaudatis. Fil. brevisima, planiuscula: anth. oblongæ, luteæ, mucronatæ, sagittatæ. Germ. 3-sulcata. Stig. 3, replicata, inclusa.

An unrecorded species found by Mr. Burchell near Kläarwater, a village beyond the Gariep or Orange river, at the Cape of Good Hope. By combining with it two species, to which we have added a third, its discoverer has

instituted a new genus, and one that relieves *LACHENALIA* and *SCILLA*, each of an heterogeneous associate, by receiving the *viridis* of the former and the *serotina* of the latter. It consists at present of;

glaucum. *The subject of this article.*

viride. *LACHENALIA viridis*. *Hort. Kew. ed. 2. 2. 286.*

crispum. *Burchell MSS.*

serotinum. *SCILLA serotina*. *Curt. mag. 859, 1185.*

L. viridis had already been made the foundation of a separate genus, by the title of *ZUCCAGNIA*; this was not however adopted, and the name has been applied to another family of plants. *S. serotina* had likewise suggested a new genus, by the name of *DIRCADI*; this was also neglected. To us the present genus appears a most useful one, and adapted to receive some of the species which do not conveniently fall into the ranks of either *SCILLA*, *LACHENALIA*, or *ALBUCA*, yet partake of the features of each.

Bulb tunicate, ovately globular. *Leaves* about seven, from six inches to about a foot high, 2-3 times shorter than the scape, upright, lorately oblong, lanceolate, glaucous like the rest of the plant, flat, convolute, and sheathing at their base, *outer ones* the broadest and reflectent at the sides. *Scape* upright, scarcely flexuose, 2-3 feet high, about as thick as a large pen. *Raceme* long, spiked, many-flowered, irregularly and distantly scattered, spreading horizontally; *peduncles* straight, two or three times longer than the flower, from upright to divaricate, with a linear-lanceolate sphaerately membranous *bracte* at their base. *Corolla* of a greenish tawny colour, glaucous or clouded with a grey bloom or hoar on the outside, almost an inch in length, tubularly campanulate; *segments* oblong, obtuse, smooth and shining at the inner surface, cohering half way up, then separated, those forming the *outer limb* reflectent, protruding from beneath the apex of the interior coat a thick subulate compressed appendage half as long as the whole segment, those forming the *inner limb* straighter, converging more narrowly, slightly patent, without the appendage, much shorter. *Filaments* very short, inclosed, inserted below the mouth of the tube. *Anthers* mucronate. *Stigmas* 3, enclosed. *Germen* three-furrowed. Bloom scentless.

A greenhouse plant. The drawing was made from one that flowered in August last, in the collection of Mr. Burchell, at Fulham.

ORNITHOGALUM prasinum.

Pea-green flowered Cape Star-of-Bethlehem.

HEXANDRIA MONOGYNIA.

Nat. ord. ASPHODELI. Jussiru gen. 53.

Div. IV. Flores spicati. Radix bulbosa. Corolla sexpartita, basi staminifera.

ORNITHOGALUM. *Infor.* racemosa, bracteatum distincta. *Cal.* O. *Cor.* infera, regularis, subæqualis, patentissima, emarginata-persistens; raro connivens; nunquam cærulea aut rubra. *Fil.* erecto-patentia, subulata, basi sæpè dilatata, alterna latiora. *Stylus* erectus subnullus v. brevis v. setacco-elongatus. *Stigma* obtusum v. capitato-trilobum. *Caps.* membranacea, oblonga v. ovata, trilobo-trigona, rariùs hexagona, lobis modò compressis, 3-loc., 3-valv. valvis medio septiferis. *Sem.* numerosa in angulo interno loculamenti singuli biseriata, globosa sæpiùs angulosè pressa, rariùs compresso-palceacea; *testa* nigricans.

Bulbus tuucatus. Folia 1-plurima, carnosula, ambientia, radicali. *Scapus simplex.* Racemus spicatum productus, vel corymbosus. Bractæ solitariae. *SCILLA* diognoscendum tantummodo ob flores nunquam cærulecentes neque rubentes. *Dissert DRIMIA* ob corollam non infernè conniventem in tubum, et bulbum compactius tunicatum.

O. prasinum, foliis glauciusculis, suprà tortis; racemo divaricato, longè pedunculato; filamentis basi ovatis: stylo longiore germe.

Bulbus ovalis, integumentis subfuscis. Folia plurima (4-9) erecto-patentia, subpedata, torato-attenuata, involuto-concava, cuspidata. Scapus glauciusculus, excedens folia, teres. Racemus oblongus, laxus, patentissimus; pedunculis strictis, 2-3-plo longioribus corollâ: bracteis membranosis, lanceolatis. Cor. horizontem respiciens, stellato-patens, unciam penè transversa, glauco-virens, inodora: lac. subæquales, oblongæ, obtuse, vix 2 lineas latæ, exteriore sublatiores depresso-concaviusculæ apice inflexæ, interiores planiæ, apice glanduloso-albicans, versùs basin utrinque deflexæ. Fil. à parte breviora laciniis, alba, ovato-subulata, plana, alterna basi ventricosiora: anth. breves, luteæ, incubentes. Germ. virens, ellipticum, 3-lobum, striâ per dorsum cujusque lobi ductâ, et nervo prominulo in sulco singulo lobos intercipientे: stylus tristriato-setaceus, longior germe, albus, apiculo stigmatoso pubescente exsuperante stamine.

The boundary which separates *ORNITHOGALUM* from *SCILLA*, as these genera have been handed down to us, depends upon a feature usually considered the least characteristic of any aihong' vegetables, viz. the colour of the flower. There seems to be an understanding among botanists that no blue or red flower can belong to *ORNITHOGALUM*, which genus has become the receptacle of the plants with any other coloured flower, that would else fall as con-

veniently into the ranks of **SCILLA**. A sort of compromise which has evidently arisen from respect for long-established names, applied when only few and distant species were known. Subsequently discovered species, as is often the case, have in length of time connected the genera so closely as to leave no distinction but the too arbitrary and instable one of colour. In **SCILLA** the blue often varies to white; when all distinction ceases. The genera will one day be united, or else divided into smaller groupes.

The present is an unrecorded plant, recently introduced by Mr. Burchell, who found it within the colony at the Cape of Good Hope, not far from Graaf Reynett. It is near akin to *suaveolens* and *odoratum*, but differs in having an entirely green flower which has no scent, by a glaucous foliage which is generally twisted towards the upper part, and by filaments with an ovately dilated base.

Bulb ovate with light brown integuments. **Leaves** from 4 to 9, upright, patent, nearly a foot high, tapering from near the base, pointed. **Scape** little higher than these, slightly glaucous, about the thickness of a pen. **Raceme** many-flowered, loose, divaricate; **peduncles** straight, two or three times longer than the corolla: **bractes** membranaceous, lanceolate. **Corolla** fronting towards the horizon, nearly an inch across, stellate, of a green colour resembling that of the inside of the Pistachio-nut; segments nearly equal, oblong, obtuse, scarcely two lines broad, *outer ones* rather broadest, more depressed, slightly concave, inflectent at the end, *inner* flatter, glandularly thickened and whitish at the ends, sides deflected towards the base, so as to give them the appearance of being unguiculate. **Filaments** about one third shorter, upright, patent, white, ovate-subulate, flat, alternately wider, rather higher, and more broadly ovate at the base. **Germen** green, elliptically three-lobed, with a streak down the back of each lobe, and a prominent nerve intervening between the lobes: **style** setaceous, three-streaked, longer than the germen, white: **stigma** obtuse, pubescent, overtopping the stamens.

The drawing was made at Mr. Burchell's, Fulham, where several specimens of the species flowered in August last: A hardy greenhouse plant.



1866-67
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1876

HYPOXIS obtusa.

Mr. Burchell's Hypoxis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. III. Genera Narcissis non omnino affinia.

ASPHODELEAE. Brown prod. 274. Div. Genera inter Asphodeleas et Amaryllideas media.

HYPOXIS. *Inflor. fistuloso-pedunculata. Cal. 0. Cor. supera, hexapetalo-partita, regularis, æqualis, explanata, firma v. coriacea, persistens. Fil. disco glanduloso corollæ infixæ, brevia: anth. majusculæ, sagittatæ, erectæ. Stylus crassus, brevis: stig. 3, verticalia, adnata, anticæ sulcata, unita v. soluta. Caps. oblongiuscula, trigona, triloc., polysperma, evalvis, basi angustior: sem. subglobosa v. angularia, affixa angulo interno loculamenti; testa nigra, saepius punctata.*

Radix rhizoma bulbiceps polymorphum, interdum tunicatus bulbus includens rhizoma. Folia ambientia, plurifaria, radicalia, saepius canaliculato-trigona, rigidiuscula. Scapi saepè plures successivi. Pedunculi bracteati. In capsulâ maturâ modo obliterantur septa, que prius evidentissima. Sem. modo biseriata, pedicellato-funiculata.

II. *obtusa*, rhizomate cylindrico, conico; foliis margine et carinâ hirsutis; scapo hispido, plurifloro, subracemoso: corollæ lacinia obtusis. *Hypoxis obtusa. Burchell MSS.*

Rhizoma bulbiceps magnum, annulatum, veteribus basibus setosum. Folia plurima (10), fusciculata, erecto-patentia, lineari-lanceolata, rigida, carinato-triquetra; exteriora torta in spiram, interiora longiora angustiora, sub-œcoundcialia, ad maximum $\frac{3}{4}$ partes uncia lata, longè acuminata. Scapus strictus, inclinatus, teres, foliis subbrevior. Flores tulei, inodori, parci, laxius et interruplè racemosi, superni subcymoso-fustigiantes: pedunculi floribus 2-3-pla breviores, æquales bracteis lineari-subulatis carinatis. Germ. breve, hirsutum, continuum pedicello. Cor. intus nitens; lacinia elliptico-oblongis, exterioribus subangustioribus, parva mucrone præfixis, interioribus utrinque deflexis. Anth. lanceolatæ, 3-pla longiores filamentis subulatis flavi. Stylus duplo brevior staminibus, conicus, triquier; stigmata co-adnata.

An unrecorded species discovered by Mr. Burchell during his late-travels in the interior of Southern Africa, on the sandy plains in the vicinity of Litakoon, the chief place of the Bachapin nation, distant about 1000 miles N. E. from Cape Town.

The rootstock of most tunicated bulbs is enclosed within concentric laminæ, and forms the nucleus of the bulb; but in this genus it constitutes far the larger portion of the

whole, and bears the bulb at its summit, or in the centre when flattened, in the shape of a bud, and is thence termed bulbipitous. In the present species the rootstock is of considerable magnitude, cylindric and conical, marked with annular scars, and bristled with the fibrous remnants of the bygone foliage. *Leaves* many (10), fasciculate, upright, patent, *outer ones* twisted, *inner* longest, narrowest, about eight inches high, linear-lanceolate, tapering from near their base, triangular, with a sharp keel and channel, about three fourths of an inch over at the broadest, thinly pubescent, except at the edges, where they are thickly so. *Scape* stiff, inclined, round, hispid, rather shorter than the inner leaves. *Flowers* few, scentless, of a shining yellow colour within, disposed in a loose irregular raceme, upper ones subfastigiate: *pedicles* equal to the linear-subulate keeled *bracteas*, two or three times shorter than the corolla. *Germen* short, roughly pubescent, continuous with the pedicle. *Corolla* persistent, firm; segments nearly equal, elliptically oblong, obtuse, *outer* rather narrowest, with a small subpubescent point, *inner* deflectent at each side. *Anthers* lancolate, three times longer than the subulate filaments, yellow. *Style* half the length of the stamens, conical, triquetral: *stigmas* united.

HYPoxis borders closely upon GAGEA, a genus which Mr. Salisbury has judiciously detached from ORNITHOGALUM; but in that the corolla is inferior, below the german.

The drawing was taken from a plant which flowered in Mr. Burchell's collection at Fulham in August last. Requires the shelter of the greenhouse.



SANSEVIERA zeylanica,
Ceylon Bow-string-hemp.

HEXANDRIA MONOGYNA.

Nat. ord. ASPARAGI. Jussieu gen. 40. Div. I. Flores hermaphroditæ, germen superum.

SANSEVIERA. LIRIOPE; Lour. SALMIA; Cavan. ALETRIS; Gært. Cal. o. Cor. infera, tubulosa, limbo sexpartito reflexo. Fil. summo tubo imposita, patentia, haud medio incrassata. Stig. capitellatum v. crassum et trifidum. Baccæ 3-loc., loculamentis monosperminis, uno vel et altero saepè oblitteratis.

Herbæ perennes, stoloniferae. Rhizoma crassum, repens: scapus radicalis, compositæ racemosus v. spicatus floribus in fasciculos numerosos proximè sparsos segregatis, aut simplicissimè spicatus. Folia omnia radicalia, pluri-v. bifaria, saepè crassa atque dura, carne fibrosa. Ægrè dignoscitur DRACENÆ nisi ob filamenta non fusiformia, sed aquabiliter crassa, tum ob folia et caulem rhizomati insidentia, non elevata caudice fruticoso.

S. zeylanica, foliis glabris oblongis acutis planis et lineari-lanceolatis canaliculatis, stylo longitudine staminum, bracteis pedunculi longitudine. Willd. sp. pl. 2. 159; (*exclusis synonymis* Thunb. Cavan. et Lour.).

Sansevieria zeylanica. Hort. Kew. ed. 2. 2. 278; (*excluso synonymo Rorbi. corom.*). Redouté liliac. 290.

Aletris zeylanica. Mill. dict. ed. 8. n. 4.

Aletris hyacinthoides, a. *zeylanica*. Linn. sp. pl. 1. 456. Hort. Kew. 1. 464.

Aloë hyacinthoides, a. *zeylanica*. Linn. sp. pl. ed. 1. 1. 321.

Aloë zeylanica pumila, foliis variegatis. Comm. hort. 2. 41. t. 21. Pluk. atm. 19. t. 256. fig. 5.

Folia plurima, fasciculata, erecto-patentia, rigida, crassa, sub-9-uncialia, lanceolato-subulata, à basi transversè unciali sensim attenuata, involuto-canaliculata, glauca, undata maculis transversè alternis atro-virentibus latè, cartilagineo-marginata, exteriora breviora. Caulis teres infernè versùs foliis nonnullis vagis bracteaceis. Racemus compositus, numerosus, cylindricus, plurimum exsuperans folia: florum fasciculi pauciflori, subsessiles v. breve pedicellati, proximi, bracteati. Cor. sesquiuncialis, ex viridi alba, angustius tubulosa, semisexfida, infra 6-striata, attenuata et cum pedicello circumscissa articulata: limbi lac. ligulatae, æqualis, subcarinatae, obtusæ, infra utrinque crispulæ, apice incurvo-cavatae, mucrone brevi pruinulosæ. Fil. limbo à parte breviora, patentia, alternè breviora. Anth. incumbentes. Germ. loculis 1-spermis. Stylus corollæ æqualis, inclinatus, filamentis crassior, 3-striato-filiformis; stigmate brevissimè 3-lbbo, obesiusculo.

The nearly allied species *guineensis*, we believe is known to bloom frequently in our collections, but the pre-

and was told at Amsterdam, where it had been long cultivated, that it was never known to blossom at that place. A very common plant in the hothouses of this country, and kept for the sake of the curious foliage; the present, however, is the only one of which we have seen the inflorescence. Introduced by way of Holland about 1731. The synonym adduced from Dr. Roxburgh's work, in the late edition of the *Hortus Kewensis*, seems to belong to a very distinct species, the leaves in that being longer than the stem, linear, caudate, not glaucous, and described as acquiring the height of 3 or 4 feet. It has altogether a very different aspect from *zeylanica*. The *SALMIA spicata*, adduced by Willdenow, plainly belongs to *guineensis*; the *LIRIOPE* of Loureiro to neither. The English generic denomination is adopted from the use, to which the fibres of the foliage of one of the species are said to be applied in India.

The genus borders hard upon *DRACENA*, and is principally distinguished from it by not having fusiform filaments, nor leaves and stem supported by a frutescent caudex or trunk. Species of it belong to India, China, and, as said, to Guinea. Thunberg and Mr. Burchell found two at the Cape of Good Hope, one of which is very near to *guineensis*, if not the same, and the other to *zeylanica*.

The leaves of our plant seldom exceed 8-9 inches in height, and are about one and a half over at the widest part, broadly subulate, involutely channelled, of a glaucous hue, variegated by broad dark green undulated alternate bars which cross from one side to the other, bordered by a narrow cartilaginous rim. Stem round, upright, higher than the foliage; raceme numerously flowered, cylindrically elongated, composed of closely scattered few-flowered shortly pedicled bracteate fascicles. Corolla greenish white, about an inch and half long, narrow, tubular, divided in six parts to the middle, tapered towards the base, connecting by a jointlike constriction with the pedicle; segments divaricate, narrow, linear, equal, slightly keeled, obtuse, finely curled at each edge below the middle, incurved at the apex, with a small point. Filaments patent, about one third shorter than the limb. Cells of the germen one-seeded. Style equal to the corolla, inclined, thicker than the filaments. Stigmas three short obtuse lobules.

The drawing was taken at the late Mr. John Hall's, at Notting Hill.



Vol. Edwards Vol. Pl. by J. Rodriguez 1791. Illustration
Dr. L. 1816. Lanchester

PANCRAZIUM maritimum.

Sea-Pancratium, or Daffodil.

HEXANDRIA MONOGYNIA.

*Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.**AMARYLLIDÆ. Brown prod. 296. Sect. I.**PANCRAZIUM. Suprà vol. 1. fol. 43.*

P. maritimum, spatha multiflora, foliis lineari-lanceolatis, nectarii dentibus 1/2 non staminiferis. *Willd. sp. pl. 2. 42*; (*exclusis synonymis plantarum indicarum et americanarum*).

Pancratium maritimum. *Linn. sp. pl. 1. 418.* *Cavan. ic. 1. 41. t. 56*; (*excl. syn. Milleri*). *Hort. Kew. 1. 411. ed. 2. 2. 219.* *Salisbury in Trans. linn. soc. 2. 70. t. 9.* *Desfont. atl. 1. 283.* *Redouté liliac. 8. Lam. et Decand. fl. franç. 3. 230.* *Flor. græc. t. 309.*

Pancratium marinum. *Ger. eniac. 173. 3.*

Pseudonarcissus marinus albus, *Pancratium vulgæ*. *Park. parad. 106. t. 107. fig. 5.*

Hemerocallis valentina. *Clus. hist. 1. 167.*

Bulbus tunicatus, *subglobosus*, *integumentis fuscis*. *Folia plurima (8)*, *ligulata*, *angusta*, *concaviuscula*, *crecta*, *subbifaria*, *longiora* *scapo*, *semunciam transversa*, *glaucissima*, *estriata*, *dorso convexus*, *acumine brevi obtuso terminata*. *Scapus sesquipedalis vel ultræ*, *compresso-teres*, *glaucus*, *estriatus*. *Spatha bivalvis*, *4plo* *serè* *brevior floribus*, *spacelata*, *lancolata*. *Umbella* 2-7-flora *v. ultræ* *subsessilis*, *v. pedicellis crassis brevissimis*. *Flores longi*, *albi*, *fragrantissimi*: *geru*, *oblongum*, *obtuse trigonum*, *glaucum*; *tubus corollæ* *virens*, *ampliatus* *in faucenti turbinatam*, *3-4-uncialis*; *limbus* *brevior tubo*; *lac.* *recurvo-stellatis* *lineari-lanceolatis* *inferne longè* *cum corona* *concretis*; *interioribus* *sublatioribus* *ad latera* *tenorioribus* *alique* *subdiaphanis*, *tantummodo* *ex striâ* *mediâ* *externâ* *virentibus*, *exterioribus* *crassioribus* *externâ omnino viridiâ*; *corona* *ampla*, *undâ* *quartâ* *parte* *brevior limbo* *cui longissimè* *adnata*, *turbinato-cylindracea*, *12-fida*, *dentibus angularibus æqualibus*. *Stam.* *brevissima*, *conniventia*, *parum longiora* *dentibus coronæ*; *anth.* *verticigales*, *subconniventes*. *Stylus* *carollâ* *parum* *brevior*, *inclinatus*; *stigma* *punctatum* *obtusum*.

Native of the South of France, where it is found deeply buried in the sand among the rocks on the sea-shore; of Italy, the Levant, Spain, and the Barbary Coast. Introduced into our gardens nearly two centuries ago, yet very rarely known to blossom in them. We had never seen it in bloom, nor even heard of its having been seen in that state in this country, till the present autumn, when it flowered in Mr. Griffin's collection at South Lambeth, where it had

been treated as a hothouse plant. Miller seems to have mistaken *P. illyricum* for it, as many gardeners of the present day have also done. Its fragrance is exquisite.

P. carolinianum of Linnæus, an american, and *P. verecundum* of Solander, an east indian plant, had been considered as belonging to this, and included in the synonymy. But Mr. Dryander, whose sagacity is seldom at fault, has dismissed them entirely in the last edition of the *Hortus Kewensis*. Indeed the fact of the specific identity of three plants of this genus, indigenous of three so widely parted regions, does at least require the voucher of the strictest scrutiny to be securely admitted. And we have no reason to think that such test has been applied in the present case. Mr. Pursh it is true adopts, in his *American Flora*, the synonym of the european plant for his species, but we believe that he never had an opportunity of deciding their identity from a comparison of living specimens.

Root a roundish tunicated bulb with brown coverings. *Leaves* several, in this individual eight, ligulate, narrow, slightly concave, bifarious, upright, rather longer than the scape, about half an inch across, very glaucous, streakless, slightly convex along the back, shortly and obtusely pointed. *Scape* from eight inches to a foot and half high, cylindrical, compressed, glaucous, unstreaked. *Spathe* of two spathelated lanceolate valves, almost four times shorter than the flowers. *Umbel* 2-7-flowered or more, nearly sessile, or with very short thick peduncles. *Flowers* large white: *germen* oblong, obtusely triangular, glaucous; *tube* of the corolla green, 3-4 inches long, slightly enlarged towards the *faux*; *limb* shorter than the tube, segments linear-lanceolate, adhering for a considerable distance to the *crown*; *inner ones* rather broadest, of a tenderer and semitransparent substance at the sides, thicker and externally green along the middle; *outer ones* substantial, wholly green at the outer surface; *crown* large, wide, about one fourth shorter than the limb to which it adheres, for a great length, cylindrical, narrowed downwards, 12-cleft, with pointed equal teeth. *Stamens* short, connivent: *filaments* scarcely longer than the teeth of the *crown*.

CYRTANTHUS collinus.

Narrow glaucous-leaved Cyrtanthus.

HEXANDRIA MONOGYNIA.

*Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.**AMARYLLIDÆ. Brown prod. 296. Sect. I.**CYRTANTHUS. Cul. O. Cor. supera, nutans ad cernuam, tubulosa, clavata, curva, regularis, subæqualis: lac. limbi ovato-oblongæ tubo cum fauce triplo breviores v. ultræ. Fil. fauci tubi inserta apice conniventia, inclusa.**Bulbus et habitus omnino AMARYLLIDIS. Folia biseria, 3-plurima, angustius latiusve lorata. Spatha communis biclavis, multiflora. Umbella pedunculata, bracteatum interstincta. AMARYLLIDIS conjunctissimum genus, at limbus corolla plurimum brevior tubo. Fructum matutum non vidimus; sed germen triloculare atque ovula plura biseriata in loculis.**C. collinus, foliis subtrinis, linearibus, glaucis; pedunculis flore aliquoties brevioribus, laciniis limbi apice rotundatis; staminibus os tubi non excedentibus.**Bulbus globoso-ovalis, integumentis fuscescentibus. Folia 3, inferne versis attenuata, canaliculato-involuta, subpurpurascens, suprà explicatoria, vix tertiam uncia lata, acumine oblusulo. Scapus cylindraceus, glaucus, crassitudine pennæ scriptorice mediocris, foliis denuò subbrevior. Spatha multi(10)-flora, lanceolata, rubido-sphacelata, pedicellos exsuperans. Umbella cernua miniato-coccinea. Cor. subbiuncialis, lincis senis pallidioribus hexangulari-strata, aliquoties longior pedicello, tubus gracilis in faucem plurimum ampliorem cylindraceam dilatascens; limbus campanulato-palens, tubo cum fauce qualiter brevior, laciniis oblongis obtusatis, interioribus tantulum latioribus, exterioribus mucronulatis. Stylus ascendens; stig. 3, brevia, replicata, ore tubi emicantia. Stam. brevissima, nec excedentia basin limbi, conniventia, alterne subbreviora; anth. incumbentes. Germ. glabrum, brevè oblongum, rotundatè trigonum, striis 6 albis notatum; 3-loc. polyspermum; ovula 2-seriata.*

An undescribed species, very recently introduced by Mr. Burchell, by whom it was found on the hills near Ge nadendal, about 100 miles distant from the chief town at the Cape of Good Hope. It is about the size of, and near akin to *angustifolius*, but differs from that, in having leaves which are glaucous, and not bright green; a germen with six whitish lines that are continued throughout the corolla, which inclines more to a poppy-colour than in *angustifolius*; in having the segments of the limb of an

elliptic oblong form, with a rounded point, not ovate and acute; in having stamens so short as not to elevate the tops of the anthers above the orifice of the faux, not equal in length to the limb; a style which scarcely overtops these, and lastly, in having pedicels two or three times shorter than the flower, not equal to it.

In character the genus scarcely differs from *AMARYLLIS* by any other feature than in having a limb three or more times shorter than the tubular portion of the corolla.

Bulb ovate. *Leaves* three, narrowly lorate, glaucous, narrowed and involutely channelled downwards, flatter upwards, scarcely more than the fourth of an inch broad. *Scape* glaucous, hardly equal to the leaves, about as thick as a middling sized pen. *Spathe* many (10)-flowered, lanceolate, sphacelate, reddish, longer than the peduncles. *Corolla* cernuous, of a deep scarlet or poppy colour, about two inches long, several times longer than its peduncle, marked with six longitudinal equidistant paler lines; *tube* slender, widening into a much broader cylindrical faux; *limb* nearly four times as short as the tube and faux together, segments oblong, obtuse, inner rather broadest, outer terminated by a small mucro. *Stamens* exceedingly short, yellow.

The drawing was made from a plant which flowered in Mr. Burchell's collection at Fulham, this autumn. A green-house plant.

• The corolla dissected vertically.

AMARYLLIS calyprata.
Green-flowered Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen. 54.* **Div. II.** Germen inferum.

AMARYLLIDÆ. *Brown prod. 296.* **Sect. I.** Radix bulbosa. Flores spathacei, raro solitarii.

AMARYLLIS. *Suprà vol. 1. fol. 23.*

Div. bi-multifloræ, tubo coronato. Folia bifaria.

A. calyprata, biflora, semiringens; foliis plurimis, tubo coronato membranâ brevi decolori integerrimâ.

Folia coriaceo-firma erecto-patentia, lorato-lanceolata, $2\frac{1}{2}$ pedes longa, sesqui v. 2 uncias lata, non glauca, clathrato-venosa, costâ mediâ canaliculata et carinata, deorsum attenuata rigida involuta, sursum planiuscula longè acuminata, acuta. Scapus (modò phares successivi) parum brevior foliis, robustus, rectus, cylindraceo-attenuatus, levissimè compressus, glaucus, striatus, inferne purpurascens. Spatha bivalvis, membranosa, striatula. Flores maximi, diutini, subflavido-virentes, nutantes, pedunculati, 5-unciales, ab imo pedunculo ad summa stigmata usque 9-unciales, bis altiores spathâ; pedunculi calamum crassi, subæquales germini v. parum longiores, virentes, rotundatè trigoni. Germ. obesius pedunculo, unciale, obsoletè pulvinato-trilobum, lavis, exsulcum, non glaucum. Cor. rictus transversim latior; tubus germini subisoperimeter, rectus, cylindraceus, obsoletè triangularis, intensius virens, bis brevior limbo: limbus 6-partitus, infrâ imbricatus, chloroleucus, clathrato-venosus, laciinis subæqualibus, lanceolatus, acutis, versus marginem pallidi-oribus, undulatis, exterioribus 3 dorso gibbosioribus, carinâ saturatè virentibus, inflexis, mucrone compressâ, interioribus disco planioribus involutis reflexis, summâ mediâ arcuatâ, antrorsum depresso, lateribus reflexâ, laterali bus ejus binis divaricato-recurvis, sublatiорibus, sursum obliquatis; inferioribus 3 inter se æqualibus prostantioribus, lateralibus 2 medianam summam referentibus, imâ mediâ laterales 2 summas. Corona fiuialis ore triangulâ contracta. Stam. exserta, fasciculata, declinato-assurgântia; fili robusta, tereti-trigona, subulato-attenuata, rubore lurido obsoletè varia: anth. violaceæ, pol-line flavo. Stylus staminum concolor, longior atque crassior: stig. revoluta. •

• The present is the fourth unrecorded species of the genus made known in this work, and the introduction of which is due to Mr. Griffin. The *hyacinthina* of the fasciculus for the preceding month, was the first evidence of an *AMARYLLIS* with a blue flower; the present the first of one with a green flower. Until their appearance amongst us, an *AMARYLLIS* of either of these colours was still a chimæra. *Calyprata* is moreover remarkable in having the membranæ which crowns the orifice of the tube and sur-

rounds the base of the stamens, entire, not as in all the species where it has been yet met with, split or unravelled into a sort of fringe, or divided into scale-like lobes. A feature which narrows the compass of that part of the technical character which separates the genus from *Narcissus*, to the insertion of the filaments to within the tube below the base of the crown in that genus, and to their insertion at the summit of the tube on a level with the crown in this.

A native of the Brazils, where it was found by Mr. E. Woodford, and sent by him to this country.

Bulb tunicated. *Leaves* many, firm, substantial, bifarious, upright, patent, lorate, lanceolate, about two feet and a half in length, from an inch to an inch and half in breadth, not glaucous, latticed-veined, channelled at the midrib and keeled, downwards narrowed involute and stiffened, upwards flattened, far acuminate. *Scape* (sometimes two or three in succession) rather shorter than the foliage, thick, cylindrical, tapering, straight, very slightly compressed, glaucous, not streaked, reddening below. *Spath* bivalved, membranous, finely striate, twice shorter than the flowers. *Flowers* two, of the largest dimensions in the genus, of considerable endurance, of a yellowish green colour, without scent, peduncled, about five inches in length, from the base of the peduncle to the summit of the stigmas nine inches: *peduncles* as thick as a large pen, about equal to the german or rather longer, trigonal with rounded corners, green. *Germen* of greater circumference than the peduncle, about an inch long, obscurely 3-lobed, lobes pulvinate, not glaucous, unfurrowed. *Orifice* of the *corolla* widest crossways; *tube* nearly of the same diameter as the german, straight, cylindric, obscurely trigonal, deep green, twice shorter than the limb; *limb* six-parted, semi-ringent, imbricated below, pale green, latticed-veined; segments nearly equal, lanceolate, acute, undulate, paler at the edge, *three exterior ones* convex at the back, where they are of a deeper green and keeled, toward the top connivent, with a compressed point, *three interior* flatter in the disk involute reflectent: *upper middlemost* vaulted, inclining forwards; *the two side ones* divaricately recurved, slanting upwards, a little broader than the rest; *three lower ones* forming the nether lip, projecting more than those of the upper lip; *two lower lateral ones* resembling the upper middle segment; *lower middle one* resembling the two upper lateral.

ones. *Crown* shallow, membranous, colourless, entire, surrounding the filaments at their base, but not connecting them like a web, as in *PANCRATIUM*. *Stamens* fasciculate, declined, assurgent, projecting beyond the corolla; *filaments* thick, trigonal with rounded corners, subulately tapered, of a dingy pale mottled red: *anthers* violet-coloured, with yellow pollen. *Style* of the same colour as the filaments, but thicker, and of greater length: *stigmas* revolute.

The drawing was taken from a plant which flowered last September in Mr. Griffin's hothouse at South Lambeth.



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B. D. Buckley 1910 Recd. June 1, 1910

MITELLA *diphylla*.
Two-leaved Mitella.

DECANDRIA DIGYNIA.

Nat. ord. SAXIFRAGE. Jussieu gen. 308.

Div. I. Fructus superus capsularis, apice birostris.

MITELLA. *Cal. 5-fidus, persistens. Petala 5, laciniata aut pinnatifida, summo calyci inserta, ejusdem laciniis alterna. Stam. ibidem inserta. Caps. 1-loe., 2-valvis, valvis aequalibus. Folia simplicia, pleraque radicalia; flores in scapo nudo aut oppositè diphylo luce spicati terminates.* Jussieu.

M. diphylla, foliis sublobato-acutangulis dentatis, caule erecto superne oppositè diphylo. *Pursh amer. sept.* 1. 313.

Mitella diphylla. *Linn. sp. pl.* 1. 580. *Milt. dict. c. 8. n. 1. Hort. Kew.* 2. 83. *ca.* 2. 3. 73. *Gaert. sem.* 1. 208. *t.* 44. *f.* 6. *Mich. bor-* *amer.* 1. 270. *Rob. w.* 80. *Lamarc. illustr.* 1. *tab.* 373. *fig.* 1. *Weld. sp. pl.* 2. 633. *Schkuhr. handb.* 1. 373. *t.* 120.

Cortex americana altera, floribus minutum fimbriatis. *Mentz. pug. t.* 16

americana, spicata, flore, petalis fimbriatis. *Herm. par.* 130.

Nov. ab s. Cortex ind. a, flore spicato fimbriato. *Dodart mem.* 299.

Herba perennia, pubescens pilis brevibus interspersis triplo longioribus, caulis semizedalis ad dodrantalem, parum supra medium oppositiflos. Folia exserta, subtrilobata lobis acutangulis, inciso-dentata nisi in sinu basi ab uliginosa pilosa, nervosa, subrugosa, radicalia erecta, 2-5o longè petiolata, copulis 3-5is ovato-lanceolatis membranaceis ciliatis cuspidaatis supra glutinosa, rufa superna, subsessilia, uncicilia v. magis. Racemus continuus, distans, 3-5is, ramulis multifloris, sparsus, erectus, flores (14-16) parvuli, tubo rotundato calyce brevioribus teretibus villosis suffultis bracteis subaequali orato rotundata denticulata glabra apice c. sc. vel acuminata. Cal. pubescens, segmentis 5atis c. sc. acuminata, erexitimis, tubicibus. Cor. alba; pet. unguiculata ad divisaeras ciliatis posita, unges his regales, lamine subrotundae v. ellipticae, pinnato-multifidae laciniulis capituloibus. Stam. inclusa calyci, vixque tubo incrassato ad punctum ubi inseruntur petala circumposita. Fil. brevia, subulata, apice inflexa: ianth. subrotundae, luteae. Germ. ova- tum, conicum, virens, minutè pubescens: stig. 2 obtusa, aequalia stamina.

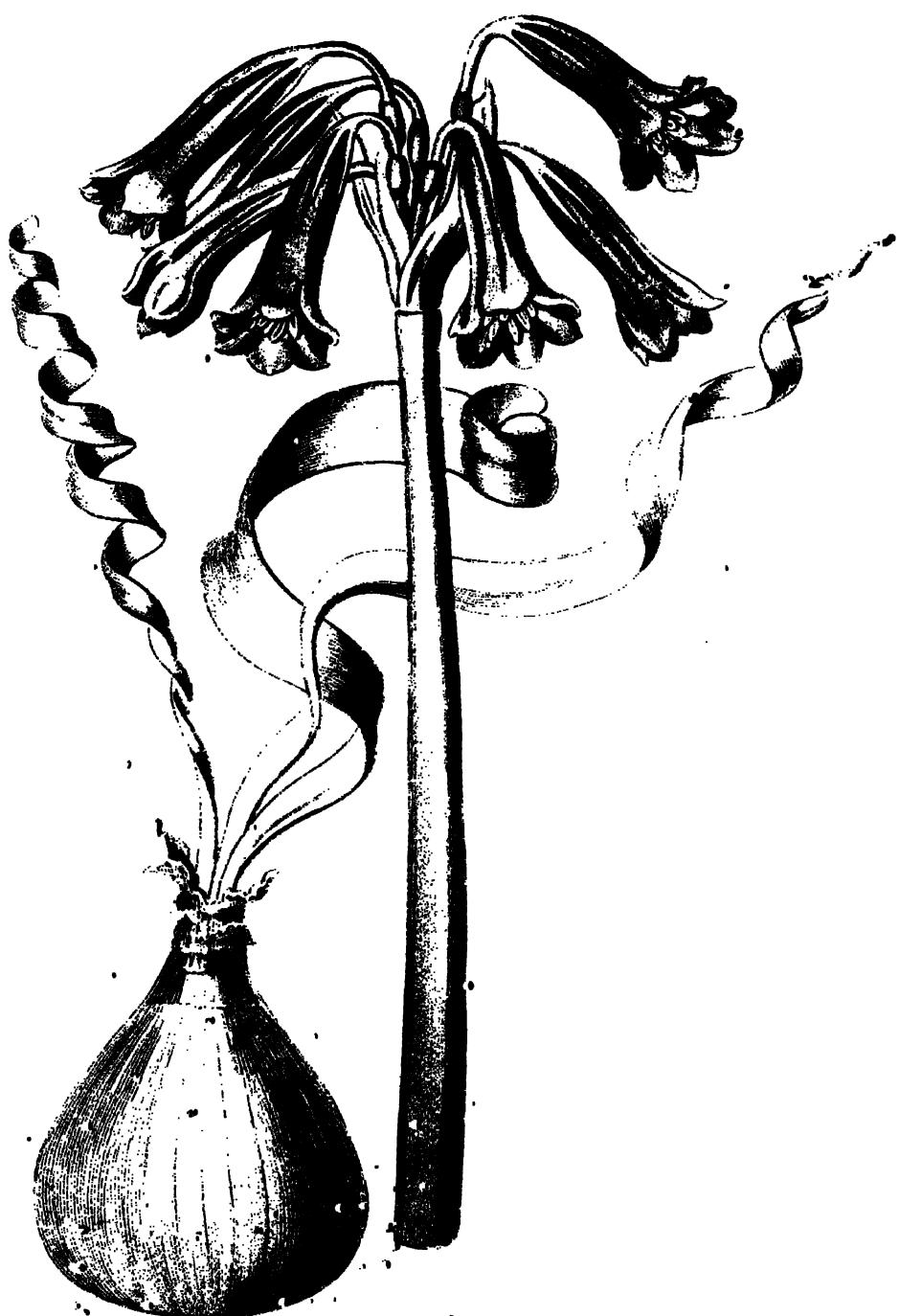
• Native of North America, where it grows in shady places, near springs, among rocks. Cultivated in 1731 by Miller, in Chelsea Garden. Perfectly hardy; but loves a soft loamy soil and shady situation. Is propagated by parting the root in autumn. Flowers about May. The genus belongs to the tribe of *Saxifragae*.

A perennial rooted herb, coated with shortish hair of unequal lengths. Radical leaves from two to five, with

longish petioles; blade patent, cordate, faintly 5-3-lobed, lobes shallow, acutely angular, deeply dentate, five-nerved, subrugose, an inch long or more, with two ovate lanceolate cuspidate smooth ciliate membranous *stipules*; *cauline* almost sessile, opposite, placed nearly half way up the stem. *Raceme* continuous, distant from the two *cauline* leaves, upright, loosely scattered, many-flowered, patent. *Flowers* small, whitish, on round villous *pedicels* shorter than the *calyx*, with a nearly equal ovately round smooth denticulate generally acuminate *bracte* at the base. *Calyx* pubescent, with straight whitish ovate pointed segments. *Corolla* rotate, white, *petals* five, unguiculate, inserted opposite to the intervals between the calycine segments, claw or tail equalling these, blade roundish or elliptic, pinnately multifidous, segments of almost capillary fineness. *Stamens* shorter than the *calyx*, placed within its thickened tube at the point where the *petals* are inserted. *Filaments* short, subulate, inflectent at the point: *anthers* roundish, yellow. *Germen* ovate, conic, green, minutely pubescent: *stigmas* 2 obtuse points, continuous with the valves of the *germen*, equal to the *stamens*.

The drawing was made from a plant which flowered in Mr. N. S. Hodson's collection at South Lambeth.

A magnified dissected flower, showing the pistil, the stamens, and the insertion of the petals into the calyx.



"Chambers did" "Tul. typ. T. Rudolphii 156" "Kew Catalogue Janus 1821" "Smith. Sculpt."

CYRTANTHUS spiralis.
Spiral-leaved Cyrtanthus.

HEXANDRIA MONOGYNIA.

*Nat. ord. NARCISSI. Jussieu gen. 54. Div. III. Germen, ir-
ferum.*

*AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix
bulbosa. Flores spathacei, raro solitarii.*

CYRTANTHUS. *Suprà fol. 162; ubi omittendum est verbum*
“curva,” *et pro “laciniae limbi tubo cum fauce triplo breviores”*
legendum “laciniae limbi fauce breviores,” pro “Fil. fauci tubi inserta”
ponendum “Fil. fauci supra tubum inserta,” et pro “spatha multiflora,”
“spatha uni-multiflora.”

*Dignoscatur AMARYLLIDE ex limbo breviore quam fauor tubulosa,
non longiore; filamentis insertis fauci supra tubum, non summo tubo
infra fauorem. Semina in C. angustifolio paleaceo-compressa. Forte
etiam in reliquis congeneribus.*

C. spiralis, pluriflora, foliis subtrinis, ligulatis, spiralibus, obtusis, glaucis.
Cyrtanthus spiralis. *Burchell MSS.*

Cyrtanthus angustifolius. *Jacq. hort. schœnb. 1. 40. t. 761 (non alio-
rum); tantummodo tamèn quod ad figuram bulbi aphylli floridi; folia
enim in textu descripta et iconè seorsim delineata suspicimur speciei
pertinere alienæ.*

Cyrtanthus ventricosus. *Willd. sp. pl. 2. 49. Hort. Kew. ed. 2. 2.
222.*

*Bulbus oblongo-ovatus magnitudine ferè ovi gallinacei, indusio glabrato
fusco, nervis rectis parallelis remotiusculis striato. Folia tardiora inflores-
centiâ, 2-3, erecta, spiraliter contorta, semipedalia, dimidium unciae lata,
inferne versùs attenuata, subsplendens, glauca. Scapus pedalis, pennâ
anserinâ crassior, columnari-strictus, teres, viridis rubedine aliquâ suffusus,
glaucò rore opacatus. Spatha 2-valvis, lanceolata, subæquans pedunculos.
Unibella subseptemflora, bracteis interstinctâ, floribus cernuis miniatis biven-
cialibus. Cor. clavata-cylindracea, ulî latior diametro ferè pennæ orlorinæ;
tubus gracilis, recurvus, in fauorem inflatius et abruptius dilatatus quam in
congeneribus glauco aut angustifolio; limbus penè quater brevior portione tu-
bulosus, patens, laciniis elliptico-ovatis, exterioribus mucronulatis. Stain. ad
medium limbi usque vel ultra prostantis: anth. flavæ. Stylus æquans stamina.*

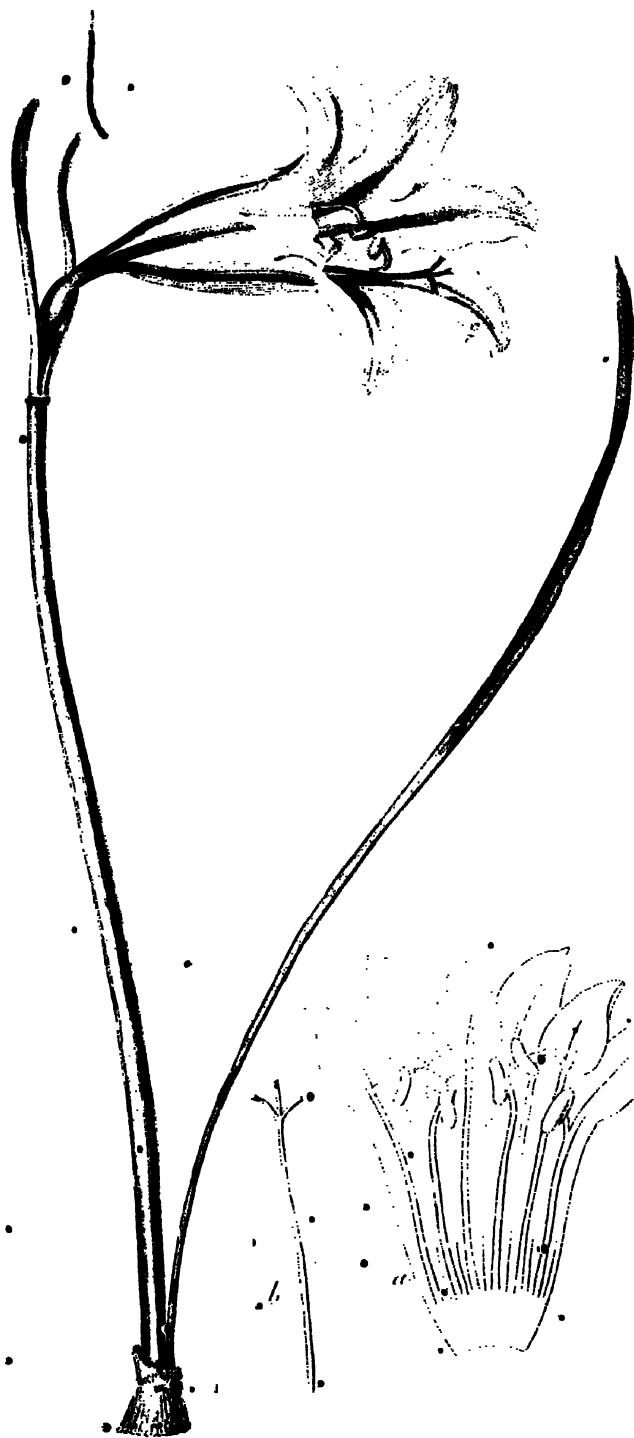
We have no doubt that our plant is of the same species with that cited from the *Hortus Schœnbrunnensis* of Jacquin, in as far as relates to the description and figure of the plant with a bulb and inflorescence, without leaves; but we suspect that the foliage described in the text, and represented in another part of the plate, belongs

to another species. The mistake has probably arisen from some accidental transposition of the specimen in the period of time that intervened between the taking of the description and drawing of the flower, and the subsequent appearance of the foliage. The true *angustifolius* (figured in Curtis's Magazine: 271) is very distinct from that of Jacquin, it is altogether a smaller plant, with clear green, still narrower, not spirally wreathed leaves, and a corolla with acuminate segments.

The present species is an extremely rare plant; and although recorded in the last edition of the *Hortus Kewensis*, we have never met with it in any collection except in that of Mr. Burchell, by whom the plant from which our figure was drawn was found at Uitenhage, near Algoa Bay, in the territory belonging to the colony of the Cape of Good Hope. This gentleman brought home many of the bulbs, several of which flowered in his garden at Fulham, in September last.

Bulb oblong-ovate, with smooth light brown integuments, streaked, but at widish intervals. *Leaves* generally appearing after the inflorescence has gone by, from two to three, ligulate, upright, spirally wreathed, about half a foot high, half an inch broad, narrowed downwards from below the middle, glaucous, yet somewhat shining. *Scape* thicker than a large quill, columnar, about a foot high, glaucous over green, tinged with purple. *Spathe* as long as the peduncles. *Umbel* of about seven flowers, divided by bracts, *flowers* cernuous vermillion, inclining to salmon colour; about two inches long, with the diameter of the stem of a swan-quill, twice as long as the peduncles. *Corolla* of a clavately cylindric form, with a slender short tube enlarging into a wider faux, and rather more abruptly than in that of either of the allied species, *glaucus* or *angustifolius*; limb four times shorter than the tubular portion of the flower, patent; segments elliptical, ovate, outer three with a small point. *Stamens* standing out as far as the middle of the limb, or farther: *anthers* yellow.

Requires keeping in a greenhouse during the colder part of the year.



Engr. by J. Ridgway 1700. Printed by J. & C. 1817.

CYRTANTHUS uniflorus.

One-flowered Cyrtanthus.

HEXANDRIA MONOGYNIA.

*Nat. ord. Nauicissi. Jussieu gen. 54. Div. III. Germen inferum.**AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa. Flores spathacei, raro solitarii.**CYRTANTHUS. Suprà fol. 167.*

C. uniflorus; folio solitario, linearí, glauco: limbo sub-equate faucom.
Amaryllis clavata. L'Heritier sert. angl. 11. Willd. sp. pl. 2. 52.

Folium *erectiusculum*, *æquans vel superans* scapum cum flore, *vix lineam latum*. Scapus teres, *erectus*, *culmum triticum crassus*, *subspiculatus*, *glaucus inferne rubescens*. Spatha foliolis *duobus lineari-attenuatis*, *duplo longioribus ultrâve pedicello fusco-virenti*. Germen *oblongum*, *lineare*, *oblusè trigonum*. Cor. *horizontali-nutans albida*, *extus striis sex equidistantibus lateritiis v. puniceis per omnem longitudinem hexangulosa-notata*, *intus lincis totidem sanguineis brevibus è fundo tubi alterne cum striis extimus ductis radiata*, *biuncialis*, *rectiuscula*, *ubi latior diametro digiti v. circiter*; *tubus fusco-rubens*, *subæqualis germini*, *angustus*, *amplius in faucom ventricosius cylindricam limbo æqualem*: *limbus patulus*, *laciniis ovatis acutulis nervo medio intus prominulo*, *exterioribus 3 mucronatis*. Filamenta *brevia faucom vix exsuperantia*, *incurvo-conniventia*: *antheræ incumbentes*, *luteæ*. Stylus *ruber parùm excedens antheras*; stig. 3, *rubra*, *patentia*.

A species wavering between **CYRTANTHUS** and **AMARYLLIS**; but agreeing with the former, in having filaments which are inserted into the faucom above the tube, and a regularly patent limb, as short as the faucom or shorter; and we have enrolled it there. Indeed the two genera are in all else so close, that we can detect no other marks to keep them clear. Our plant was recorded by L'Heritier as an **AMARYLLIS**, and called *clavata*; before the present genus had been instituted. Several bulbs of it have been now first brought into this country by Mr. Burchell, three or four of which produced their blossom: of these the one figured here had by far the largest and brightest coloured flower, that of the others was of much smaller calibre, with less widely expanded segments, and with the six external stripes of a dingy tile-red, not of a bright carmine, as in that of the present. It grows spontaneously at the Cape of Good Hope, near Cam-

tour's river. Approaches AMARYLLIS by the *vittata* of that genus.

Leaf upright, linear, glaucous, scarcely more than a line broad. *Scape* round, as thick as a wheaten straw, about seven inches in height, glaucous, reddish below. *Spathe* of two narrow tapered leaflets, twice longer than the peduncle. *Germen* oblong, linear, obtusely trigonal. *Flower* nutant, whitish and hexangularly marked with six vertical narrow equidistant crimson stripes, about two inches long, and nearly of twice the diameter of a swan-quill: *tube* of a dusky red, about equal to the germen, slender; *faux* equal to the limb or longer; *segments* patent, ovate, somewhat acute, with a vertical middle nerve inwardly prominent. *Filaments* scarcely reaching beyond the faux, short, incurvately connivent: *anthers* yellow incumbent. *Style* red; *stigmas* red patent.

The drawing was taken this summer at Mr. Burchell's, Fulham.



Bot. by J. Ridgway 1793. Drawn by J. C. Smith.

GLADIOLUS edulis.
Esculent-rooted Cornflag.

TRIANDRIA MONOGYNIA.

Nat. ord. ENSATE. **Linn. ord. nat. VI.** **Nobis in ann. bot.**
1. 219.

IRIDES. *Jussieu gen. 57.* **IRIDEA.** *Brown prod. 305.*

GLADIOLUS. *Inflo. alterna, disticho-spicata, pauci-multiflora,* distincta *spathis* bivalvibus lanceolatis, valvâ anticâ involvente posticam angustiorem. *Cor.* supera, tubulosa, 6-tida, infundibuliformis, irregularis, *tubo* erecto gracili in faucem brevem v. cylindraceo-elongatam ampliato, *limbo* 6-partito bilabiato, subaequali et divaricato, v. inaequalissimo laciniâ summâ porrecto-depressâ. *Fil.* ori tubi inserta, collateralia-adscendentia, inclusa. *Anth.* lineari-oblongæ, introrsum suspensæ, versatiles, verticatae. *Stylus* cum directione staminum, tristriato-filiformis. *Stig.* lamellæ 3 elongatae, obverse attenuatae, complicato-canaliculatae, replicatae. *Caps.* membranacea, ovato-oblonga, obtuse trigona, 3-loc., 3-valv., valvis medio septiferis. *Sem.* numerosa, gemino ordine imbricatim cumulata, internæ margini septi utrinque annexa, cincta alâ membranacea latâ circum nucleum parvum cartilagineum; alâ ob testam nucleo grandiori et paucâ pulpâ obducto expletam rarissimè oblitterata.

Bulbo-tuber *globoso-ovatum*, *integumentis membranoso-fibrosis*, *externis crassitudine maximè variis*. Folia 2-plura, *collaterali-disticha*, *infrâ vaginantia et vaginâ radicali membranosa complexa*; *lauina plano-ensata*, *rariùs decussato-quadrangularis*, modò ad paginam utramque bisulca cum margine utrinque elevatâ, v. interdùm cartilagine crassâ circumscripta. Caulis *culmaceus*, *sæpiùs simplex*, *terte v. vunc triquetus*. In proximis **BABIANA** et **ANTHOLYZA**, præter habitum diversum, semina non' ulata.

G. edulis, foliis longissimis lincaribus glaucis, *nervo utrinque prominenti*: *limbi laciniis caudatis*.

Gladiolus edulis. *Burchell MSS.*

Bulbo-tuber *ovato-conicum*, *nucleo castaneo-carnoso*, *indusio reticulato*, *fusco*. Folia *subquaterna*, *cauli inferne imposita atque duplo longiora*, *proxima*, *lineari-acuminata*, *vix sesquilineam fata*, *glaica*, *plana*, *nervo medio quadrato utrinque extante nec tamen cum elevatione adæquante planum transversum folii*. Spica multi-(sub-8-)flora, *remotiuscula*, *flexuosa*, *erecta*. Spathæ *duplo breviores* floribus, *sphacelato-membranosa*, *tenues*, *æquivalves*; *valvæ arctius convolutæ* *interiore bifidæ*. Cor. *dilute purpurascens* *sesquiuncialis*, *semiringens*, *labiis inæqualibus*: *tubus gracilis* *parùm dilatatus* *æquans spatam*; *laciniis* *cum cuspidé* *tenui longâ abrupte acuminatis*, *summâ latiore* *arcuato-adscendente* *remota*; *ceteris rhombo-lanceolatis* *invicem conniventibus*, *lateralibus* 2 *summis* *oppositiis*, *lateralibus* *quam tres inßimæ* *sanguineo-pictæ* *atque invicem æquales*.

An unrecorded species, found by Mr. Burchell in South Africa, near Litakoon; almost the farthest inland

point in that direction visited by any european who has returned to the Cape of Good Hope. It differs from the many others we have examined, by a corolla with rhomboidally lanceolate segments terminating in long abruptly narrowed caudately tapered points. The roots are roasted and eaten like chestnuts, which they resemble in taste and quality.

Bulb-tuber ovate, tapered, with a kernel nearly of the substance of a chestnut, and netted integuments. *Leaves* very long, four or thereabouts, placed towards the bottom of the stem, twice as high as that, linear, acuminate, glaucous, scarcely a line and half broad, having a square midrib prominent from both surfaces, but not equalling in depth the breadth of the blade. *Spike* 8-flowered or thereabouts, loose, upright, flexuose. *Spathes* spathaceous, rolled close, twice shorter than the flowers; valves equal, inner one bifid. *Corolla* of a very diluted purple, nearly bleached, about an inch and a half long, semiringent, with unequal lips: *tube* slender, equal to the spathe; *segments* suddenly narrowed into a long slender point, upper one broadest, arched, standing aloof; the rest rhomboidally lanceolate connivent, two upper lateral ones opposite and broader than the three lowermost, which are marked with crimson.

The drawing was taken in September, from a plant at Mr. Burchell's, Fulham.



and *Camellia* 181
Published by J. Ridgway 1792. Printed by G. C. 1847.

CARTHAMUS tinctorius.
Safflower, or Bastard-Saffron.

SYNGENESIA POLYGAMIA EQUALIS.

Nat. ord. CINAROCEPHALÆ. Jussieu gen. 171.

Div. I. Cinerоcephalæ v r  . Squam  calycis spinos .

CARTHAMUS. Flores hermaphrodit . Cal. multiplici serie

polyphyllus, imbricatus, squamis interioribus simplicibus acuminatis aut spinosis, exterioribus basi arctis, apice foliaceo divaricatis, et margine dentato- aut sinuato- spinosis. Recept. tectum pilis. Herb  spinos  aut mites, quedam calyc  subinermi minus congeneres. Semen C. tinctorii nudum pappo mox deciduo. Flosculi radiates ex Hausto neutri aut abortientes in C. lanato et C. cretico ind  ad CALCITRAPAM depellendis et CALCITRAPE benedict  affinioribus. Juss. gen. 172.

C. tinctorius, caule glaberrimo, foliis ovatis integris spinoso-dentatis, seminibus nudis. *Weld. sp. pl. 3. 1706.*

Carthamus tinctorius. Lin. sp. pl. 2. 1162. Hassk. it. 483. Mill.

dict. ed. 8. n. 1. Beckmann in Nov. comm. goett. IV. 94. Regn.

bot. G r  . sem. 2. 375. t. 161. fig. 2. Allioni pedem. n. 562.

Zorn ic. 140. Hort. Kew. 3. 150. ed. 2. 4. 491. Lam. et Decand.

fl. franc. 472. Lam. illustr. t. 661. f. 3.

Chicus sativus S. Carthamus officinarum. Rumph. amboin. 5. 215. t.

79.

Chicus vulgaris. Clus. hist. 2. 152.

Herba annua nunc 3-pedalis. Caulis erectus, teres, strictus, solidus, glaber,   viridi albidus; supern  fastigiato-ramosus. Folia sparsa, caulin , patentia, semiamplexicaulia, ovalia, acuminata, venosa, nuda, spinuloso- dentata; radicalia oblonga, inferne angustata. Flores capitati, ramulorum in pedunculos fistuloso-clavatos abeuntium terminales, crocum redolentes. Squam  calycinae numeros  capitato-compactae, interiores arct  conniventes linearis-lanceolatae nervo o- striatae villo minuto tectori simplices, mediae squarroso- semifoliacea , exteriore patentissim  omnino folia. Flosculi ultr  unciam longi, plurimum superantes calycem, omnes androgyni, glabri, graciles; tubus striatus supern  coccineus, 3-plo longior limbo; limbus 5- partitus, connivens, flavus aureo- lato notatus, laciniis, ovali-lanceolatis margine involutis, cretis. Anth. inclusa, flavo, obtusata. Stig. flavum, exsertum, simplex, lineare, secundum marginem canaliculato- dehiscens, quasi consumptum ex 2 laminulis ad oppositos discos conferruminatis et periph riam versus solatis. Germ. glaberrimum, calvum, compresso-anceps. Sem. turbinatum, nitidum, nivolum; testa nucumentacea; umbilico supra basin posito.

A native of Egypt, recorded as growing in the gardens of this country as far back as 1551. The flowers constitute a dyer's drug, which forms a considerable article of

commerce. The plant is said to have been once cultivated to a considerable extent in Gloucestershire; but has long since ceased to be so in any part of England. In the hands of the dyer it is made to impart a fine rose or ponceau colour to silk. In the Levant and Spain, it is much used as a culinary ingredient, so it was formerly here. A red pigment for painters is made from the stamens. The cosmetic rouge, called Vegetable rouge, Spanish vermillion, Lake of Carthamus, receives its hue from safflower. The seed has a place in the *Materia medica*, but we believe is no longer prescribed in practice. This is sometimes called Parrot's corn, being a grateful and wholesome food for that tribe of birds; altho' noxious, as it is said, to all other animals. Allioni enrols it among the native vegetables of the country about Nice, where it grows on dry hills, and if not aboriginal is domesticated to a great extent.

An annual plant, sometimes three feet high. *Stem* whitish, upright, solid, rigid, smooth, branched upwards, branches scattered and generally fastigiate. *Leaves* scattered, loose, cauline ones halfclasping, patent, oval, acuminate, veined, naked, edge spinously indented; radical ones oblong, narrowed towards the base. *Flowers* capitate or artichoke-shaped, standing upon a thickened fistular terminal peduncle continuous with each branch, smelling something like the true saffron. *Calyx* of numerous scales, *innermost* of these narrow lanceolate, externally, villous connivent, *middlemost* semifoliaceous squarrose, *outermost* perfect leaves and entirely patent. *Florets* discoid and fertile, an inch or more long, overtopping the calyx, orange-red, slender, smooth; *tube* three times longer than the *limb*; *segments* connivent, upright, lanceolate-oval, involuted at the edge. *Stigma* protruded, simple, linear, split into a groove round the edge, as if of two equal laminae conjoined inwards at their disks. *Seed* turbinate, shining, white, with an integument like a shell.

A common hardy annual; but of which we have not found a coloured figure in any English work. The drawing was taken at Messrs. Whitley, Brame's, and Milne's nursery, King's Road, Fulham.

a A flower dissected vertically, showing the germens and florets standing imbedded in the hair of the receptacle. *b* A detached floret.

CRINUM cruentum.
Mr. Herbert's Crinum.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen. 54.* **Div. II.** Germen inferum.

AMARYLLIDÆ. *Brown prod. 296.* **Sect. I.** Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

CRINUM. *Suprà vol. 1. fol. 52.*

C. cruentum, bulbo stolonifero; soliis amplè loratis, acuminatis, margine glabro; spatha herbacea elongato-oblonga apice rotundata: lacinia limbi plus duplo brevioribus tubo.

Bulbus externe livido-purpurascens, stolonifero-repens. Folia atrovirantia, coriaceo-crassa multifaria, infra convoluto-vaginantia, supra recumbentia longiora quadripedalia, 4 uncias cum dimidio lata, margine levissimo. Scapus (nunc bini successivæ) compressus v. anceps acicibus rotundatæ, viridis. Spatha foliaceo-vires erecta, valva majorc semipedali. Umbella inclinata, sessilis, multi-(7-) flora, bracteacco-distincta. Flores ad emarcescentiam usque excrescentes in longitudinem, ut denudat uncias undem extendi possint, stricti, subodorati, roseo-purpurici, sencescentes maculæ albis interrupiti. Germ. vires, subcylindricè oblongum, obsoletè trigonum, glaberrimum, estriatum, exsulcum via tubo continuo crassius. Tubus strictus, septemuncialis in longioribus, calamum crassus, pallido-vires, trigono-cylindricus angulis obtusis, exsulcus, estriatus: limbus recurvo-stellatus, lacinia elongato-lanceolata subtriangularibus latitudine $\frac{1}{2}$ partis unciae, exterioribus dorso medio viridiunculis, interioribus sublatis. Fil. sanguinea, una quartæ parte breviora limbo v. circulæ, gracilia, divaricata: anth. in lunulam curvandæ, vibræ, lineares. Stylus vix robustior filamentis, æqualis flori, intusè puniceus, triquetro-filiformis: stigma punctum atrosanguineum parum dilatatum.

We did not expect so soon the appearance of one of the same genus, that should vie with the magnificent *amabile*, introduced two or three years ago by Sir Abraham Hume. But in beauty of the corolla the present is at least equal to that, if it yields the points of fragrance and copiousness of blossom. It appears to be an unrecorded member of the genus, and has now first flowered in Mr. Herbert's hot-house at Spofford, near Wetherby, in Yorkshire. And our thanks are due to that gentleman for the entire inflorescence and some of the foliage, which were sent to Mr. Edwards by his direction, along with the principal part of the subjoined account of the plant. We do not find it mentioned in Dr. Roxburgh's manuscript enumeration of

the Coromandel plants, but are informed by Mr. Herbert that it was imported from the East Indies. It differs from all by the long herbaceous round-pointed upright leaflike spathe, colour of the flower, and extraordinary length of the tube.

Bulb large, outside lividly purple, stoloniferous. *Leaves* thickish, multifarious, spreading, of a dark green colour, four feet or more in length, 4-5 inches broad, pointed, entire and smooth edged. *Scape* (sometimes two in succession) compressed, green. *Spathe* half a foot in length, upright. *Umbel* inclined, sessile, with about 7 flowers, separated by *bracteas*. *Flowers* peach-coloured-purple, slightly scented, increasing in length till they fade; when extended measuring almost a foot, mottled with white as they go off. *Tube* straight, rigid, of the thickness of a pen, pale green, triangular with blunted corners, not furrowed, twice the length of the limb or more; *limb* stellate, recurved, segments narrowly lanceolate, about the third of an inch broad, outer ones greenish at the back. *Filaments* about a fourth shorter than the limb, slender, divaricate, deep purple. *Style* not much thicker than these, equal to the flower, crimson; *stigma* a black-red point.

It requires to be kept in the stove, and to be furnished plentifully with water. The bulb should be placed upon the surface of the soil. To be propagated by suckers produced from the base of the rootstock or axis of the bulb.



AMARYLLIS flexuosa.
Pustulous-leaved Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. **NARCISSI.** *Jussieu gen.* 54. *Div. II.* Germen inferum.

AMARYLLIDÆ. *Brown prod.* 296. *Sect. I.* Radix bulbosa. Flores spathacei, umbellati, raro solitarii.

AMARYLLIS. *Vide suprà vol. 1. fol. 23.*

Div. Hexapetalo-partite: subrotute. Foli. bifaria.

A. flexuosa, spatha pauciflora; foliis loratis angustis obtusulis minutè pustuloso-punctatis; limbi lacinii recurvo-divaricatis undulatis, unâ fasciculo declinato staminum subtensâ, remota. *Nob. de amar. in Journ. of scienc. and the arts*, v. 2. p. 365. n. 39.

AMARYLLIS flexuosa. *Jacq. hort. schœnb.* 1. 35. t. 67. *Willd. sp. pl.* 2. 60. *Hort. Kew. ed.* 2. 2. 229.

Undulata minor multiflora; *humilis major pluriflora*; *flexuosa maxima pauciflora*: ceterum inter se persimiles. *Hujus* folia modò pedalia, semunciam lata, sublîs pallentia et conspicuâ pustulata. *Scapus bipedalis*, modò calatum crassus. *Umbella laxa*, pedunculis strictis, fragilibus, longioribus spathâ subroseâ laxâ rotata sphacelatâ. *Cor. rosea*, lacinii tantum ex disco incrassato congrexis, ceterum distantibus. *Stigmata tria, replicata, rubra, puberula.* Germen loculis subcostospermis. *Capsula bulbisperma.* *Vix constanter?* Bulbus indusiis membrano-fibrosis, plexu intergeritu fibrarum bombycinis atque ductili. *Nob. in loc. cit.*

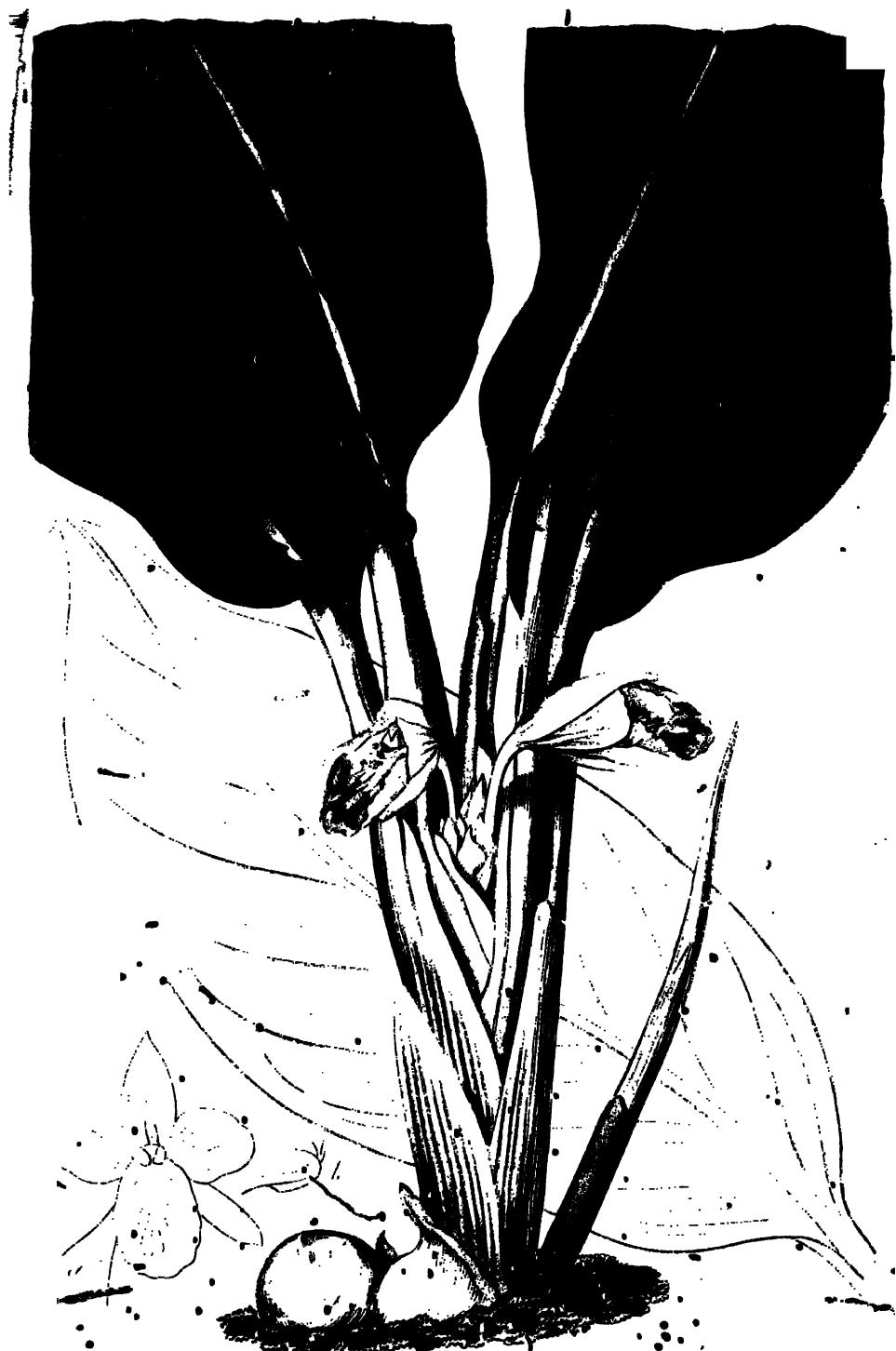
A native of the Cape of Good Hope. Introduced by Mr. Masson in 1795. It is extremely difficult to define any distinctions between this species, *humilis*, and *undulata*, which do not resolve into difference of size and its consequences. In *flexuosa* the leaves are twice or thrice broader than in *humilis*, and the whealy or pustulous efflorescence which covers them is more conspicuous, but that is all. In *humilis* the same appearance is more prominent than in *undulata*, where the foliage is the narrowest of the three. In each the undulate segments of the corolla converge towards the upper middle one, forming a semicircularly radiated lip, the lowermost middle one sometimes keeping its position under the style, sometimes slanting away from it with the others. The seeds in all are with us small green succulent roundish bulblike masses; but more numerous in *flexuosa* than in the other two. They may be distinct species, and probably are, but we confess ourselves unable

to elicit a single stable discriminating mark except size. They are all hardy greenhouse plants, and flower nearly together in the autumn. *Flexuosa*, in our apprehension, is a point at which the genus connects itself with BRUNSVIGIA.

Bulbs ovate, covered with numerous whitish membranous integuments; fibres silky, ductile. *Leaves* bifidus, lorately elongated, slightly concave and involute, bluntly acuminate, minutely whealed or pustulous, more conspicuously so at the under surface, where they are of a paler hue, from 9 inches to a foot long, and about half an inch broad. *Scape* 1-2 feet high, round, about as thick as the tube of a middle-sized pen. *Umbel*-few-flowered, loose; *peduncles* straight and rigid, green, brittle. *Spathe* shorter than these, lanceolate, sphaelate, reddish. The lower segment generally keeps in its place under the style, and does not slant away with the others towards the upper middle one, as in *humilis*, but we are doubtful if this is constantly the case. *Stamens* fasciculate, declined. *Style* declined, bowed and red upwards: *stigmas* diverging, subpubescent: *germen* 3-lobed, trigonal with rounded corners, knobbed: *loculaments* 8-seeded, or thereabouts. Those in *undulata* and *humilis* are fewer seeded.

The drawing was made in Mr. Griffin's garden at South Lambeth, where it flowers in the autumn.

A hardy greenhouse plant; multiplying by offsets from the bulb.



Coloured by J. M. Gurney & Sons 1870. Received by J. C. 1867. Smith sc.

blunt and placed at the back of that termed the lip; *three inner ones* wider, two constitute the upper lateral segments of the limb, and are obovate and rather shorter than the rest, the other is the labellum or lip, and is much the thickest and largest of the whole, as well as more gaily coloured, broadly oblong, involutely concave, wrinkled, emarginate or notched, an inch long or more, bearded at the base within. *Filament* shorter than the double *anther*, substantial, bulky, white, compressed, channelled. *Style* capillary: *stigma* just above the anther, funnel-form, compressed, pale. The flesh of the root is yellow, and the flavour is compared by Rheedle to that of Ginger and Saffron combined.

a A flower expanded more than naturally, to show the form of the segments. *b* Upper portion of the filament, with the anther and the two lobes that extend beyond it.



Lilium to R. L. Morris Co. Jan 15, 1861 *Woodbury* *Feb 11, 1861*

PANCRAZIUM canariense.
Canary Sea-daffodil, or Pancratium.

HEXANDRIA MONOGYNIA,

Nat. ord. NARCISSI. Jussieu gen. 54. **Div. II. Germen inferum.**

AMARYLLIDÆ. Brown prod. 296. **Sect. I. Radix bulbosa.** Flores spathacei, umbellati, raro solitarii.

PANCRAZIUM. Suprà vol. 1. fol. 43.

Div. Stamina spatiis alternis dentium interjecta.

P. canariense, multiflorum; foliis bifariis lancolato-loratis, glauciusculis, obtusulis, tubo bis breviore limbo, filamentis lacinulas coronæ 12-fidæ non exsuperantibus.

Bulbus, globosus. Folia plura in frâ cylindraceo-vaginantia, indè erecto-potentia, loratè elongata, subinvoluto-canaliculata, deorsum subarcuata, obtuso-acuminata, obsoletè nervosa, sesquipedalia vel altiora, maximum sesquicunciam lata. Scapus lateralis, compressus, glaucus, parùm brevior foliis. Spatha lanceolata, cuspidata, superans pedunculos. Umbella 7-8-flora, erecta, alba, remissè odora, pedunculis angulosis flori penè aequalibus. Germ. parùm brevi, tubo, lineari-oblongum, triquetrum, duplo crassius pedunculo; ovoidis ramosis in loculamento singulo biseriatis. Cor. sesquicuncialis vel parù, altior; tubus virens, angustus, sex sulcus, triquetus; limbus stellatus, infra brevè adnatus coronæ, lacinia angustè lanceolatis, longitudo duplo limbi extimus 3 latioribus: corona & pars brevior limbo, turbinate, putula, inciso-dentata, dentibus 12 angulari-acuminatis aequalibus integrerrimis. Stam. conniventia, brevissima: anth. luteæ, lunulatae, vibratae, aequales vel longiores filamentis. Stylus triquetro-filiformis, inclinatus, curvus, firmulus, aequans florem: stigma punctum obtusum parùm tumidum.

Considering the moderate extent of the Canary Islands, and the frequency with which they have been investigated by intelligent and industrious botanists from all quarters of Europe; we did not expect to find that they possessed a native liliaceous plant, so conspicuous as the present, which remained to be registered. But we can find no record of it within the chronicles of Botany; nor in any Herbarium to which we have access. The specimen that affords the drawing, bloomed this autumn in the hothouse of Mr. Griffin, at Lambeth.

It is indigenous of the island distinguished in the cluster by the name of the Grand Canary; and was brought into this country, in the winter of 1815 by Dr. C. Schmidt, a gentleman now associated to the expedition to the Niger.

It differs from the other species we are acquainted with, by the shortness of the tube and filaments, the last of which scarcely equal the dwarf lobules of the crown. And we did not find in the bloom the delightful fragrance of its congeners. It belongs to that division of the genus whose species have the filaments placed distinctly in the alternate intervals of the teeth of the crown, as opposed to that whose species have filaments which are not distinct in the intervals, but confluent with six of the teeth.

Leaves bifarious, several, cylindrically sheathed below, diverging from thence, lorately elongated, sub lanceolate, glaucous, obtusely acuminate, slightly involuted, obscurely nerved, contracted downwards, at the broadest of the blade about an inch and half across, in height a foot and half or more. *Scape* outside the foliage, which it nearly equals, compressed, glaucous. *Spathe* lanceolate, cuspidate, longer than the peduncles. *Umbel* white, 7-8-flowered, upright, slightly scented; *peduncles* angular, nearly equal to the flower. *Germen* but little shorter than the tube of the corolla, oblong, linear, three-sided, about twice the thickness of the flower-stalk; rudiments of seeds numerous in each cell, in two rows. *Corolla* about $\frac{1}{2}$ inch and half long, or rather more, *tube* green, slender, six-fluted, triangular, scarcely half the length of the limb, *limb* stellate, downwards adhering shortly to the crown, *sigilla* narrow-lanceolate, the three outermost broadest: *crown* one third shorter than the limb, inversely conical, spread at the mouth, and cut into twelve angular equal entire lobules or teeth. *Filaments* very short, in the intervals between the pairs of teeth, to which they are equal, connivent: *anthers* yellow, bent into crescents after parting with the pollen, balancing, as long as the filaments or longer, *Style* triangularly filiform, inclining, curved, substantial, length of the flower: *Stigma* an obtuse point, but little enlarged.



Pl. 62. (Continued after
page 173.) Rodriguezensis 170. Brevetally Feb 1 1896 Smith

CHELONE obliqua.

Purple Chelone

DIDYNAMIA ANGIOSPERMIA.

*Nat. ord. BIGNONIÆ. Jussieu gen. 137.**Div. I. Fructus capsulae bivalvis. Caulis herbaceus.*
CHELONE. Suprà fol. 116.

C. obliqua, foliis petiolatis, ovato-lanceolatis inæqualitèr serratis oppositis lœvibus; floribus deusè spicatis: corollis purpuris. *Mœnch* meth. 442.

Chelone obliqua *Linn. syst. veg. ed. 13.* 463. *Hort. Kew. 2.* 330. *ed. 2.* 4. 7. *Willd. sp. pl. 3.* 225. *Schkuhr hand. 2.* 188. *t. 172.*

Chelone glabra *B.* *Linnae sp. pl. 2.* 849. *Michaux bor. amer. 2.* 24. *Pursh amer. sept. 2.* 427.

Chelone purpurea. *Mill. dict. ed. 8. n. 2.*

Chelone foliis ovato-lanceolatis serratis, floribus rubris. *Mill. ic. tab. 93.*
Chelone floribus speciosis pulcherriinis colore Rosæ damascenæ. *Clayt.* *n. 274.*

Digitalis Mariana serratis densioribus rigidis et angustis foliis, semine *Fagopyri.* *Pluk. mant. 64. t. 348. f. 3.*

Herba perenniæ radice repente. Caulis articulato-fistulosus, bipedalis, distantèr foliatis, modò axillis ramosus. Folia decussata, triuncialia, oblongo-lanceolata, acuminata, rachide utrinque parallelo-nervosâ, nervis dentibusque conspersis pilis articulatis. Spicæ terminales, densatim multifloræ, decussato-tetragonichæ, bracteis herbaceis triplicibus ovato-acuminatis (mediè majore) distinctæ. Cal. 5-partitus, foliolis ellipticis concavis apice rotundatis. Cor. semiringens, roseo-purpurascens; tubus brevissimus, angustus; faux magna, oblonga, plano-convexa; limbus coarctatus, parvus; labio superiori inflexo obtuso emarginato, inferiori reflexo trifido intus barbato. Fil. fertilia, alba, compacta, pilosa; sterile quintulum rubellum: anth. didymæ lanctæ. Stylus longitudine staminum: stig. obtusum. Caps. ovato-globosa, glabra, dissepimento duplicato ex inflèxis valvularum marginibus formato; receptaculum oblongum fungosum, in axi capsulae positum, cum dissepimento non conatum. Sem. numerosa, deorsum imbricata, membranaceo-marginata. Plurima Linnae Gærtner et Mœnch suppeditata.

— A well-known hardy perennial, flowering in the autumn; native of North America, where it is found at the sides of rivulets, on the high mountains of Virginia and Carolina. Sent to Miller by Mr. Clayton in 1752. It is found to grow freely with us, and is easily propagated by the creeping root; but thrives most in damp shady positions. Mr. Pursh is of opinion with some other botanists, that the plant is not specifically different from the white sort.

(*glabra*); we have abided by the *Hortus Kewensis*, in which they are separated. The generic appellation was suggested to Tournesort by the figure of the corolla, which his fancy had assimilated to the shell of a tortoise (*χελώνη*) in miniature.

The species will soon, we suspect, be supplanted in our gardens by the *CHELONE Lyoni*; *Pursh amer. sept. 2. 737* [*major Curt. magaz. 1864*] a rival sister of new appearance and of very near resemblance, but of much larger stature throughout, a cordate-based ovate foliage, and a more resplendent flower.

In our plant the *stems* are jointed and fistular, about two feet high, distantly leaved, sometimes branching from the upper leaf-axils. *Leaves* opposite, decussated; about three inches in length, oblong-lanceolate, acuminate, ribbedly nerved with a prominent midrib or rachis, beset at the nerves and teeth by small articulated hairs. *Spikes* terminal; closely manyflowered, decussately tetrastichous or four rowed, with the flowers of two opposite rows crossing those of two intermediately opposed rows by alternate pairs; *bracts* herbaceous, in threes, ovate, pointed, middle one the largest. *Calyx* 5-parted, leaflets elliptic concave round-pointed. *Corolla* semiringent or oscitant by the under lip only, rose-purple: *tube* very short, narrow; *faux* ample, oblong, plano-convex; *limb* contracted, small; *upper lip* inflectent obtuse notched at the end or emarginate; *lower* reflectent trifid bearded within. *Fertile filaments* 4, white, compressed, hairy: the *fifth sterile* red: *anthers* didymous or twinned, woolly. *Style* the length of the stamens: *stigma* obtuse. *Capsule* globular verging on ovate, smooth, with a double dissepiment or partition formed by the inflection of the margins of the valves; *receptacle* oblong spongy in the axis of the capsule; clear of the dissepiment: *seeds* numerous, imbricated downwards, with a membranous border.

The order of *Bignoniaceæ*, as limited by Mr. Brown, does not include the present genus; nor, indeed, any of the herbaceous genera comprehended in the *Bignomiae* of Jussieu.

The calyx. *b* Lower part of the corolla dissected, so as to show the fertile stamens; and the fifth sterile filament. *c* The pistil.



Fig. 1. *Chloranthus* sp. Collected by G. Rodriguez at San José, Costa Rica, Feb. 1. 1877.

SOLANUM fontanesianum.

Desfontaines's Nightshade.

PENTANDRIA MONOGYNA.

*Nat. ord. SOLANÆ. Jussieu gen. 124. Div. II. Fructus bac-
catus.**SOLANÆ. Brown prod. 443. Sect. I. Corolla limbo
sæpius plicato. Stamina numero laciniarum. Embryo
valde curvatus. SOLANÆ VERÆ. Brown loc. c.**SOLANUM. Suprà vol. 1. 71.**Div. Foliis pinnatifidis, bipinnatifidis pinnatisectisque. Corollis 5-
fidis; baccis calyce aucto et aculeato tectis. Cryptocarpum.**Subdiv. Antheris inæqualibus.**S. fontanesianum, caule sublignoso annuo aculeato piloso, foliis pro-
fundè pinnatifidis, laciniis sinuatis, corollis subregularibus, antheris
parvís, intímâ apice curvâ subfuscâ. Dunal syn. 46. n. 286.
ejusd. Solan. ed. 2. inedit. cum tab. Poiret suppl. encyc. de La-
march. 3. 777.*

*Planta annua, vix sesquipedalis pilis stipitato-stellatis v. compendiatè pappi-
formibus cum simplisibus mixtis hirsutis pubescens, aculeis armata inæquali-
bus aliis validioribus acicularibus lutescentibus, aliis parvulis selaceis purpureo-
nigris antibus. Caulis cavus, rigidus, aculeatissimus aculeis subreflexis, su-
perne axillis ramosus. Folia pubem canam viridi-translucentia, subscarioso
rigentia, 4-uncialia, ovato-oblonga, interrupè subbibinunctifida, crispata,
petiolis nervisque utrinque aculeata, lobis interrupè profundaèque divisis
episique sinuato-pinnatisectis, lobulis sursum dilatatis, rotundatis; petiolis
3-plo brevius lamineis. Racemi pauci-(4)flori, laterales, superni, foliis dis-
tantibus, de decoloratis erigendi, secundi, brevè pedunculati. Cal. urceolatus,
5-fidus, latus, echinatus, multù minor corollæ, segmentis utrinque pu-
bescensib; parciis tamen intùs, oblongis, aculis, summa majore, laterali-
bus ejus 2 minoribus quādum duo insimis; tubus fortis germe, intus lœvis,
pari passu cum inclusa fructu augescens in mensuram adultæ baccæ capacem.
Cor. subirregularis, lutea, extùs lanata, $\frac{1}{4}$ partes uniuersa fermè transversa,
inermis; tubo brevi; limbo concavo-rotato, sinuato-quinquangulo, angulis
brevè attenuatis. Stam. declinato-conniventia; fil. bis breviora antheris: anth.
parvæ ratione congenerum sectionis sue, æquales, tma quinta cæteris proximè
subjecta, longior, suscens, apice inflexa. Stylus æqualis staminis longo,
declinato-assurgens, sub lento-puberulus, compresso-subclavatus, proximè infra
stigma brevè bilobum obliter constrictus.*

In a former article of this work, we noticed the history of the *Solanum* or Nightshades, by Dr. Dunal, of Montpellier, which had then just reached us. A work in which more than 290 species were arranged with great perspicuity and discernment under one generic head. We have now received a Synopsis of the same vegetable family from the

same pen, augmented to 340 species, of which more than 320 are ranked under *OLANUM*. And we cannot refrain from applauding the industry and ingenuity displayed in the internal organization of the group, in the view of obviating an idle subversion of a well-established genus, and the wanton incumbrance of new names.

We have no account of the indigenous abode of the present plant; which has been lately introduced by Mr. Anderson, the superintendent of the Garden of the Company of Apothecaries at Chelsea, and was received by him from some of the Parisian gardens. It belongs to the section of the genus comprising the species the calyx of which grows co-extensively with the enclosed germen, up to the complete maturity of the berry; and borders very closely on *cornutum* and *rostratum*, but differs from both, in being throughout of a much smaller size, and having the prickles of the stem deflectent; specially from the first in being annual, not perennial, by a stem with a roughish pile, not as in that smooth, and by smaller anthers; from the second by a compoundedly, not simply divided foliage; and in other points from each. Our plant was scarcely a foot and a half high, and covered with a pile of pedicled stellately pencilled hairs, intermixed at certain points with others of a simple structure; the whole beset with numerous unequal sized prickles. *Stem* rigid, hollow, branched at the axils of the upper leaves. *Leaves* somewhat harsh, shining green through the hoar of the pubescence, about four inches in length, ovately oblong, interuptedly subbipinnatifid, waved or curled at the edge, prickly at the petioles, and along the nerves on both surfaces; *lobes* deeply parted and sinuately indented; *lobules* dilated and rounded at the end. *Racemes* short, few-flowered, lateral, and standing wide of the leaves. *Calyx* unequally echinated at the tube which keeps the fruit. *Corolla* yellow, nearly regular, about three parts of an inch $\frac{1}{4}$ in diameter, woolly on the outside, sinuately pentagonal, with short pointed corners. *Anthers* small for the section of the genus, the longer fifth subtended to the other 4, tinged with brown, inflectent at the summit. *Style* equal to the longest anther.

Requires the usual treatment of common tender annuals. The drawing was made in the autumn at the Chelsea garden.

• The corolla dissected, to show the tube and stamens. The pistil.

CRINUM bracteatum.

Short-leaved Crinum.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 296. Sect. I. *Radix bulbosa*

Flores spathacei umbellati, rarè solitarii.

CRINUM. *Suprà vol. 1. fol. 52.*

C. *bracteatum*, bulbo subcolumnari; foliis oblongo-lanceolatis obtusè acuminatis cum puncto cartilagineo, margine lèvissimis, subundulatis umbella multiflora pedunculata pallido-bracteosa; limbo tubo sublongiori: styllo bractiore staminibus.

Crinum bracteatum Willd. sp. pl. 2. 47. Jacq. hort. schaub. 4. 7. t. 495.

Crinum brevifolium. Roxburgh MSS. cum tab. pict. In the Library of the East India Company.

Bulbus magnus ovo-cylindracus 4-5-uncialis, non verò porraceus v. productus in collum, radiculis crassis. Folia plurima, multisaria, patentia, 1-sesquipedalia, uncius 3-5 lata, utrinque striata, exteriora sèpè sartilaginea tenui alba integerrima abeunte in cuspide callosam marginata, deorsum breviter angustata atque erecta. Scapus 8-uncialis ad pedalem, valde compressus, intè planior, extè convexior. Umbella 10-20-flora, conspicue distincta bracteis pallidis lanceolatis tubum subsuperantibus. Spatha 3-uncialis. Flores magni, albi, odo. i., brevè pedunculati, uncias 5 in extensum superantes: tubus rectus, crevissantus, obsoletè trigonus, calamus crassus; laciniæ limbi recurvo-stellatae. Innencauda-lanares, subaequales, rotundantes v. subsuperantes: tubi extèiores tertium parem unciæ latæ, canaliculato-concavæ, interiores angustioræ planiores. Fil. regulari-divergentia, ex tertia q. rite breviora limbo v. sagis, superrà v. rufico-rubentia; anth. vibrante, flectendæ. Stylus brevior s. spinosus, sanguineus: stig. purpureum v. r. v. obsoletè trilobulatum s. germi brevem oblongum.

The number of the recorded species of the stately tropical group to which our plant belongs, has been nearly trebled by the late Dr. Roxburgh, during his assiduous superintendence of the botanic garden at Calcutta: while the address with which he has selected and defined the discriminating marks of congeners of such signal simplicity and sameness of configuration, in the unedited portion of his *Plantæ Coromandelæ*, would of itself constitute no mean memorial of his skill.

The plant which is the subject of this article is native of the Island of Mauritius; was first introduced into the garden at Calcutta; and from thence, by Sir Alexander Hume, into this country; but seems to have been grown in

continental collections of Europe for about twenty years past; although the place of its spontaneous abode had not been ascertained till now. It is among the smallest of the genus, but of considerable elegance, and very fragrant.

Bulb 4 or 5 inches high, of an ovately cylindrical form, but not porraceous, or elongated into a neck or above-ground-stem. *Leaves* many, multifariquisly divergent, from a foot to a foot and half long, from 3 to 5 inches broad, long or broadly lanceolate, obtusely acuminate, edged by narrow threadlike white smooth cartilage terminating in a hard point, generally curled or waved towards the base, where they are for a short space involute and contracted. *Scape* from 8 inches to a foot high, considerably compressed, flatter on the side next the bulb than on the opposite one. *Spathe* about three inches long. *Umbel* 10-20-flowered, bracteose, or conspicuously intermingled with numerous pale lanceolate *bractes* longer than the tube of the corolla. *Flowers* white, shortly peduncled, when extended about five inches long: *tube* straight, roundish, obsoletely trigonal: *segments* of the limb recurvedly stellate, reflectent, lanceolate-linear, nearly equal, as long as or rather longer than the tube, exterior ones about the third of an inch broad, interior flatter and a little narrower. *Filaments*, regularly divergent, a third shorter than the limb or more, crimson upwards; *anthers* balancing, bent. *Style* shorter than the stamens, crimson: *stigma* a given obsoletely trilobulate point: *germen* oblong, short.

The drawing was made from a plant which flowered last autumn at Wormleybury, the seat of Sir Abraham Ilume, in Hertfordshire.

Like the rest of the genus, it must be kept in the bark-bed, or on the flue of the hothouse.

* Not recorded in the late edition of the *Hortus Kewensis*.

By the side of the leaf and inflorescence we have shown an outline of the upper part of the bulb diminished.



Synd. Edwards del. Publ. by J. Ridgway and Son 1793. Commiss'd March 1. 1819. — *See*

HYOSCYAMUS canariensis.

Canary Henbane.

PENTANDRIA MONOGYNIA.

Nat. ord. SOLANAE. Jussieu gen. 124.

Div. I. Fructus capsularis.

HYOSCYAMUS. *Cal. tubulosus 5-fidus, persistens. Cor. hypogynia, infundibuliformis, limbo patente oblique 5-lobo inaequali. Stam. epipetala. Stylus unicus: stigma capitatum. Caps. supera (bilocularis) ovata, utrinque compressa et sulco exarata, apice circumscissa seu operculata. Herba; folia florulae saepè geminata; flores solitarii axillares, saepè secundi.* *Juss.*

H. canariensis, suffrutescens? foliis inferioribus cordato-ovatis, inciso-angulatis sine integris, obtusis; floralibus ovatis ellipticisve subintegris. Perennius? pilosus. Caulis strictus, teres, pilis albis mollissimis divaricatis hirsutus. Folia laxè sparsa, divaricata, solitaria, petiolata, pilosa imprimis subtus, pubescentiam canam viridissimè at subluridè translucens, ex cordatis evanescens ovata, lobulis gradatim obsolescentibus; floralia sepiè integrissima acutula, raro gemina, quorū alterum paulò minus, subcollateraliter approximatim, nunquid oppositū. Racemus terminalis, flexuoso-crectus, foliosus, remotius multiflorus, alternus, distichus: flores axillares, solitarii, erecti, singulalim explicandi, brevissimè pedicellati. Cal. herbaceus, lurido-virens, tubuloso-campanulatus, molli-pilosus, segmentis 5 latis, patentibus, spatulatis, 4-plo brevioribus tubo. Cor. è minoribus, subcaduca, fugax, stramineolutescens funce violacea, parum inaequalis, altior latiorque calyci; limbo rotato-patente laciniis brevibus, obversis, transversè latioribus, summis 2 majoribus. Stam. inclusa, declinata. Germ. post casam corollem ex opercul. suo viridissimo umbonato-roendo in ore tubi calycini apparet.

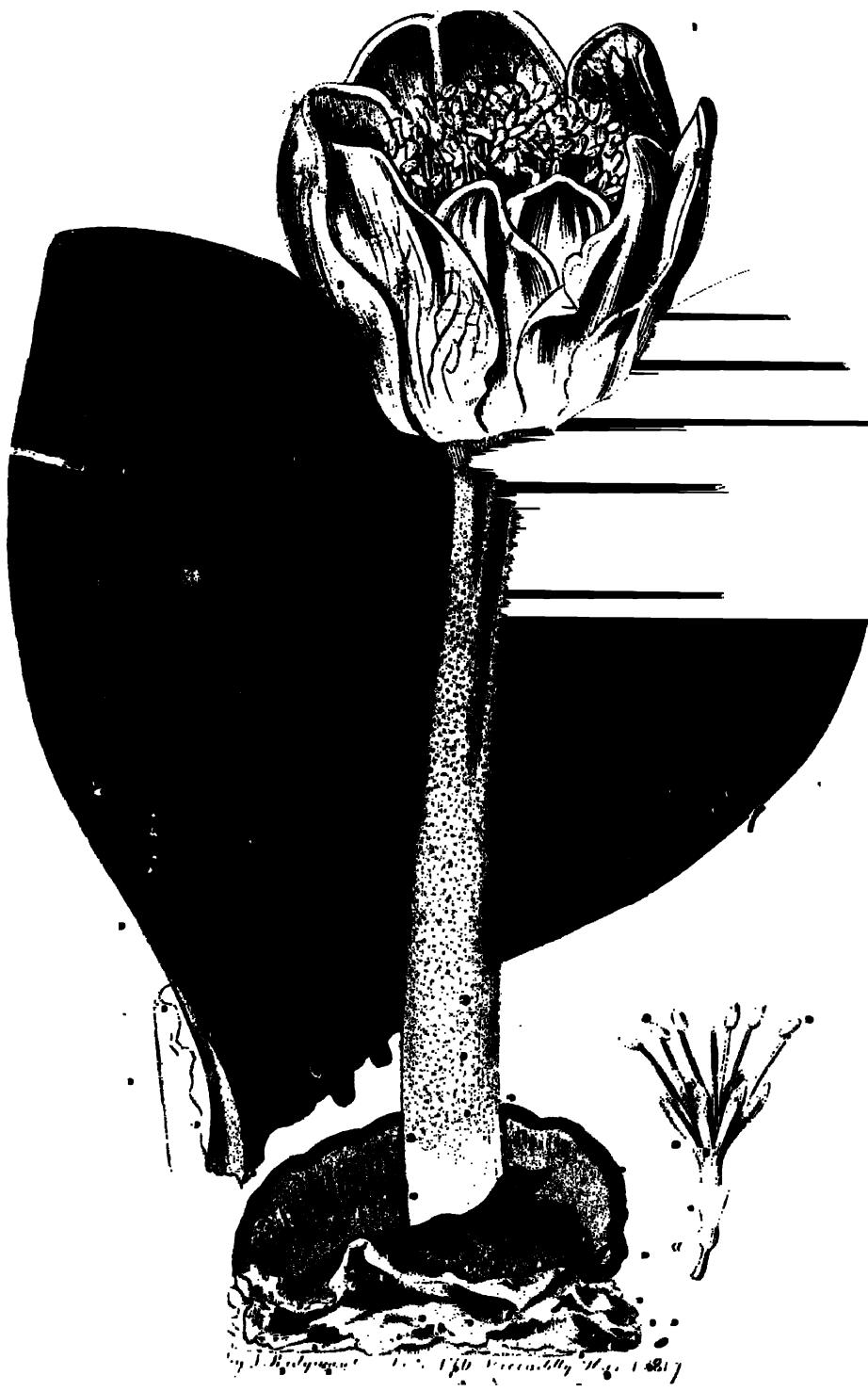
An unrecorded native of the Canary Islands; recently introduced by Messrs. Whitley, Brames, and Milne. The seed was a present from Dr. Schmidt, the learned naturalist, who, with more of his associates, has just fallen a victim to the fatigues of the expedition intended to explore the Niger.

We can scarcely yet venture to speak of the size the plant may acquire, nor of its duration. We believe it to be suffrutescent and perennial, and that it will never exceed a foot and a half in height. It does not seem inclined to produce many branches. The stem is upright, round; covered with a long dense pubescence of very soft white straight patent hair. Leaves of a deep lurid green, loosely scattered, divaricate, petioled, cordate and ovate.

with angular incisions at the sides, the lobules of which are shallow and broad, at the end entire and rounded, whole blade seldom more than $2\frac{1}{2}$ inches long, soft-haired, especially underneath; *floral leaves* alternate and bifarious, ovate and elliptic, generally entire, seldom two together, when one is rather smaller, and placed almost collaterally in respect to the other, never oppositely. *Raceme* terminal, upright, flexuose, alternately and distantly manyflowered, leafy, distichous or two ranked; *flowers* axillary, very shortly pedicled, solitary, upright, opening one at a time. *Calyx* of a lurid green, inferior, persistent, substantial, nearly $\frac{1}{4}$ of an inch long, tubularly campanulate, soft-haired; *lobules* 5, broad, patent, short, awnless, nettedly veined, 4 times shorter or more than the tube. *Corolla* caducous, higher and wider than the calyx, of a yellowish straw-colour, violet within the faux or throat; *limb* patent, very slightly irregular, *segments* broader than long, obverse, two uppermost larger. *Stamens* deflectent. *Germer* concealed within the tubular portion of the calyx; lid green, rounded, visible in front of the tube as the fruit advances to maturity. But we missed the opportunity of inspecting the corolla after the figure was taken, and must refer to the plate concerning that part of the flower.

The species appears to come the nearest in habit to the *musillus* of Persia, of any we are aware of: but that is an annual, and has a pinnatifid foliage.

The drawing was made in December, at the nursery of Messrs. Whitley and Co. King's Road, Parson's Green, Fulham.



HÆMANTHUS coarctatus.

Close-umbelled Bloodflower.

HEXANDRIA MONOGYNIA.

*Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum
AMARYLLIDÆ. Brown prod. 296. Sect. I. Radix bulbosa.
Flores spathacei, umbellati, raro solitarii.*

HÆMANTHUS. *Umbella terminalis, multi-numerosiflora: spatha polyphylla erecta, sæpè colorata, raro diphylla aut reflexa. Cal. 0. Cor. supera, erecta, regularis, æqualis, tubuloso-sexfida, limbo sexpartito connivente v. stellato, longiore tubo. Fil. summo tubo insita, erecta, exserta. Stylus setiformi-elongatus: stig. punctum simplex, v. 3 minuta replicata. Baccæ globosa v. oblongiuscula, sæpè colorata, laevis, exsulca, tri-v. (abortu) bi-uniloc., loculis monospermis: sem. erectum, conforme loculo: albumen carnosum, durum.*

Plantæ bulbosæ, scaposæ, perennes: bulbus tunicatus v. sæpius bifariam squamosus laminis inæqualibus, ovalis, indusio tectus v. nudus; rhizomate sæpè infrâ extruso, rarius composito coagmentato et bulbicpite, interdùm radiculis tuberoso-incrassatis. Folia pauca sæpius bina, bifaria, coriaceo-crassa, angusta elongata et canaliculata ad orbiculata et plana, erecta ad humistrata, raro petiolato-vaginantia luminâ oblongâ. Scapus nunc stipulis 2 radicalibus sæpè coloratis marcescentibus immediate stipatus. Umbella congesta inclusa ad laxam exsertam. Spatha in quibusdam hædū male corollam TULIPÆ refert. Limbi basis modò arctior tubo summo sexgibboso-dilatato. Ex multioro vergit ad proximum CRINUM.

H. coarctatus, stipulis 2 radicalibus intrafoliaceis nascentia folia simulantes: foliolis spathæ pluribus coloratis erectis obtusissimis umbellam congestam æquantibus: foliis glaberrimis: corollâ infundibuliformi.

*Hæmanthus coarctatus. Jacq. hort. schænb. 1. 30. t. 57. Willd. sp. pl. 2
26. Hort. Kew. ed. 2. 2. 207.*

Totus glaber. Bulbus oblongo-ovatus, squamosus magnitudine pugni, compressus; squamis v. laminis crassis, carnosis, truncatis, sordide albentibus margine tenuissimo fuligineo marcidoque circumdati, distichis, imbricatis. Folia prodeunt post scapum florentem, 2 v. 3, elongatae sub lanceolatae, acutulae, integriforma, utrinque ad lenticem punctatula, striatula, crassa, coriacea, planulae, tota lœte viridia et immaculata, erecta v. patula, ferè pedalia. Sæpè ad latu scapi alia folia simul prodeunt, parva et subrubitaria, que vero ultra v. a prolongantur, sed sic perstant, tandem marcescentia. Scapus ante folia validè compressus, erectiuscula, ad folia lateralis, viridis cum punctis sanguineis, 8 v. 9 uncias longus. Involucri magni foliola fere 6(8) oblonga obtusa parumpè conchva, integriforma, erecta, sordide sanguinea (venosa), latitudine s. sita, inæqualia, biuncallia. Flores numerosi, erecti, pedicellati, longitudine involucri. Germen oblongum. Cor. inferne albida, superne pallide minuta, turgidus brevissimus, superne parumpè (sexgibbus) ampliatus: (limbi basi constricti) laciniae ligare, obtusa, superne concavæ, erectæ, æqualis unicolor. Fil. subylata, erecta, corollæ concolora, sâdemque ad unam tertium longiora: anth. flavæ. Stylus erectus longit. et colore filam: stig. obtusum flavescens. Jacquin t. c.

~~H~~**H**EMANTHUS, as at present defined, has no spontaneous species without the continent of Africa; and there only within or near the tropics. Its nearest kindred in the corresponding climates of Asia and America are comprised under *CRINUM*. In Europe one or two yellow species of *AMARYLLIS* are its nearest relatives in that quarter of the world.

~~H~~**H**EMANTHUS *dubius* of Humboldt and Bonpland is an evident anomaly in the group; and a plant we suspect not reducible to any established genus, without complicating the character of the same, so as to perplex more than an additional new name will encumber. We believe it to be a congener of the *CRINUM urceolatum* of the Flora Peruviana, another heterogeneously assorted species.

Coarctatus was introduced from the Cape of Good Hope by Mr. Masson, in 1795.

Bulb oblong-ovate, compressed, bifariously tunicated, *laminas* in two opposite compactly imbricated series, broad, fleshy, truncated, outermost shortest. *Leaves* 2-3, posterior to the inflorescence, broadly lorate, wide pointed, smooth-edged, spotless, nearly flat, divergent, a foot or more in length. *Stipules* 2, radical, one on each side next the scape, broad as the foliage but very short, party-coloured, having the appearance of nascent leaves, but are membranous, and decay without elongating. *Scape* much compressed, green, thickly speckled with crimson dots, 6-9 inches high. *Leaflets* of the *spathe* 6-8, large, upright, of a dark orange-scarlet colour, oblong, of unequal breadth, veined, obtuse, even with the numerous-flowered pedicled crowded *umbel*. *Corolla* narrow-funnelform, white below, pale vermillion above; *tube* short, dilated upwards with six small protuberant corners; base of the *limb* contracted and narrower than the mouth of the tube; *segments* linear, turbinately connivent, obtuse, concave at the upper part, equal, nearly an inch long. *Filaments* subulate upright, of the same colour as the border or limb, which they overtop by the distance of about one third of their whole length. *Style* upright, equal to the stamens, and of the same colour: *stigma* obtuse.

The drawing was taken last autumn from a plant in Mr. Griffin's conservatory at South Lambeth. By no means common in our collections. Does not require any peculiar care, and will thrive in a greenhouse.



11. 1876. Kew Gardens
1876. Kew Gardens, March 1, 1876.

CUPHEA procumbens.

Procumbent Cuphea.

DODECANDRIA MONOGYNIA.

*Nat. ord. SALICARIA. • Jussieu gen. 330.**Div. I. Flores polypetali.*

CUPHEA. *Cal. tubulosus 12-striatus 6-(12-Brown.) dentatv. dent. superiore latiore: (basi hinc gibbosus. Brown in Hort. Kew.) P. 6, inaequali summo caiyci inserta et ejusdem divisuris alterna, 2 superiora majora. Stam. insertione inaequalia, nempe hinc 8 co-ordinata et conformia, inde 4 minora gemino ordine disposita quorum 2 superiora villosa; antr. subrotundæ. Caps. oblonga 1-loc., calyce tecta, cum ipso simul hinc fissa et tunc cyrtoformis; recept. centrale è mediâ per rimam crumpens flexum, circiter 5-spermum seminibus lentiformibus quasi spicato-secundis. Herba undique viscosissima, folia opposita axillis in inferioribus scapiis alternâ ramiferis, superioribus subunifloris. Juss. gen. 332.*

C. procumbens, caule herbaceo, ramis procumbentibus viscosis, foliis ovato-lancolatis subhispidis brevitè petiolatis. *Cavan. iv. 4. 55. t. 380.*

Cuphea procumbens. *Persoon syn. 2. 8.*

Herba annua pubescenti-viscidus. Caulis procumbenti-assurgens, pilis glanduliferis purpureis hirsuto-viscidus, pedalis et ultrâ, ramosus; rami axillares, inferni, alterni, simplices rotundatè 4-goni, ascendentes. Folia lanceolata, opposita, punctata, ovato-lancolata, albo-pilosusciliata, nervosa, rachide sublîs varicosa, sesqui-ad triuncialia, decrescentia ad bracteacea minima, supernae crebriora; petiolis brevis, hirsutus. Flores caulem ramosum racemoso-terminantes, alterni, interfoliacei, solitarii, nubantes, irregulares, per transversam corollam subunciales: pedicellus longior petiolis, 2-3-plo brevior calyce. Cal. persistens, violaceo-striatus, ut caulis pubescens, hinc ventricosus, basi superiore subcalcarato-productâ, fance dilatata ore subbibratiato, labio summo viridi productiore recurvo bipetalifero, ino 4-petalifero minore: dentes 6 callosi apice setiferi. Pet. bilabiato-rotata, distanta, roseo-purpurascens, tenera, fugacia, obovato-spathulata, calyce breviora, undulata-rugosa, ungue brevi angusto, laminâ subrotundâ; Superioris labii 2 majora. Fil. inclusa pilosa apice inflexa ordine gemino fauci calycis inserta, 5 alterna breviora, suprema 2 sub antherâ lanâ densâ barbatâ. Stylus indusus albus subulato-setaceus, subglaber pilis paucis vngis, supra incurvus persistens, geminis membranacei albi scuti continuus: stig. subcapitellatum.

A species of a genus belonging to the same natural order, in Jussieu's arrangement, as the Indian *GRISLEA tomentosa* of the 30th article of this work, and as the common Purple Loosestrife (*LYTHRUM Salicaria*) found at the side of our own rivers. Native of Mexico, and very lately introduced from the Berlin botanic garden, from whence it was

received both by Mr. W. Anderson, of the Apothecaries' botanical establishment, and Messrs. Whitley and C^o.

On referring to the Banksian Herbarium, from which the *CUPHEA lanceolata* of the late edition of the *Florula Kewensis* was adopted; we are led to suspect that that plant, though very near, is distinct as a species from this. Its stem is entirely upright, much slenderer, and the pubescence white; a flower situated near one of the branches has a peduncle even longer than the calyx, all are upright, and the plant is upon a smaller scale throughout. But still the specimen is too shattered and imperfect for a safe decision, and may have been one of feeble growth, and the direction of its stem and flowers may have been altered by the mode of drying the plant. Yet we are inclined to believe it essentially distinct. Be that as it may, the appellation of *procumbens* should certainly be maintained on the score of priority, whether the plants should prove ultimately of one species or not.

The present is an annual. First raised in Europe by Professor Cavanilles, in the garden of the Buen Retiro at Madrid. In part procumbent, in part ascendent; *stem* herbaceous viscidly and roughly pubescent, with purple hairs, a foot or more long, branched; branches axillary, low down, alternate, simple, bluntly 4-cornered. *Leaves* opposite; patent, ovately lanceolate, slightly pubescent with white hairs, nerved, rachis or midrib varicose beneath, from an inch and a half to near three inches long, diminishing as they advance towards the summit of the stem to mere bractes: *petiole* short, hirsute. *Flowers* numerous, loose, terminating stem and branches in leafy racemes, alternate, solitary, interfoliaceous or lateral between each pair of leaves, nutant, irregular, about an inch across the corolla: *peduncles* longer than the petioles, two or three times shorter than the calyx. *Calyx* purplish, tubular, with 12 raised streaks and a pubescence the same as that of the stem, ventricose beneath, upper side of the base projecting like a short obtuse spur, fauex widened, orifice slightly bilabiate, patent, upper lip largest bearing 2 petals, lower smaller bearing 4 petals; lobules or teeth 6, callous, thickened, pointed by a terminal bristle. *Petals* inserted within the rim of the orifice of the calyx, and alternating with the teeth, rose-purple, bilabiately rotund, with open intervals.

fragacious, tender, obovately spatulate, undulate, shorter than calyx, upper two largest. *Filaments* enclosed, hairy, inserted in two alternating series in the faux of the calyx. five shorter than the rest, uppermost two-bearded, with dense purplish wool close under the anther. *Style* white, enclosed, subulately lengthened, nearly smooth, with a few downy hairs scattered above the middle, curved at the top, persistent, continuous with the thin membranous white tapered *germen: stigma* subcapitate.

The drawing was taken late in the autumn at the nursery of Messrs. Whitley, Braines, and Mihne, at Parson's Green, where it was kept in the greenhouse.

a A flower dissected vertically, showing the insertion of the petals into the calyx, and that of the stamens. *b* The pistil.



ASTER novæ angliæ.
New England Star-wort.

SYNGENESIA POLYGAMIA SUPERFLUI.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.

Div. II. Receptaculum nudum. Semen papposum. Flores radiati; (in Tussilagine et Senecione flores partim flosculosi.)

ASTER. Flores radiati, ligulis pluribus quam 10, latoeolatis. Cal. imbricatus, squamis inferioribus patulis. Pappus pilosus. Flores paniculati aut corymbosi; ligulæ violaceæ aut purpurascentes aut albideæ. Species paucissimæ fruticulosaæ. A. alpini cardis simplex uniflorus. Juss. gen. 181.

** Div. II. Herbacci foliis linearibus lanceolatis integerrimis.*

A. novæ angliæ, foliis lanceolatis integerrimis cordatis amplexicaulibus pilosis, calycibus discum superantibus laxis, foliolis lineari-lanceolatis subequalibus, caule hispido. Hort. Kew. 3. 201.

Aster novæ angliæ. Linn. sp. pl. 2. 1229. Mill. dict. ed. 8. n. 5. Hort. Kew. ed. 2. 5. 55. Michaux bor. amer. 2. 113. Willd. sp. pl. 3. 2032.

Aster foliis lanceolato-linearibus alternis integerrimis semi-amplexicaulibus, floribus capitato-terminatricibus. Gron. virg. ed. 2. 124. Clayt. n. 244.

Aster novæ angliæ altissimus hirsutus, floribus amplis purpurco-violaceis. Herm. paradisei. 98. cum tab.

Asteripholis. Pouteed. diss. 244.

Perennis. Orygialis v. ultræ. Caules hispidi fusco-rubescentes, stricti, supernè flexuosi laxius atque latisculè paniculati, ramis simplicibus, summis subcorymboso-sustigantibus. Folia erectiscula, profundè latoeolato-amplexicaulia, lineari-lanceolata, angusta, triangularia v. longiora, decrescentia, hispidius villosa. Flores in ramorum finibus capitato-corymbulosis, 1-5, majusculi, pedunculis brevissimis. Cal. campanulatus; foliolis pauciserialis, subcoloratis viridibus, lanceolato-linearibus, longè acuminalis, villosis, subsuperantibus discum floris. Radius cyaneus vel purpurco-rubens. Flosculi disci flavescentes, limbo brevi fusco-purpureo, dentibus 5 ovato-acuminatis. Arct. inclusæ. Stigmata 2, replicata, linearia, lutea. Germen albo-scricum, oblongum, pappo fulvescente.

Of about one hundred species of ASTER which have been enumerated by Willdenow, upwards of sixty belong to North America. Mr. Pursh has since increased that number to seventy-eight in his North American Flora.

The present species is said to be found from Canada to Virginia. Our plant is evidently, even to the variety, the same with that of the Flora Virginica; a fact we have established, by comparison with the prototype specimen in Clayton's Herbarium. We doubt, however, whether it is that intended by Pursh, since we did not find it to be the

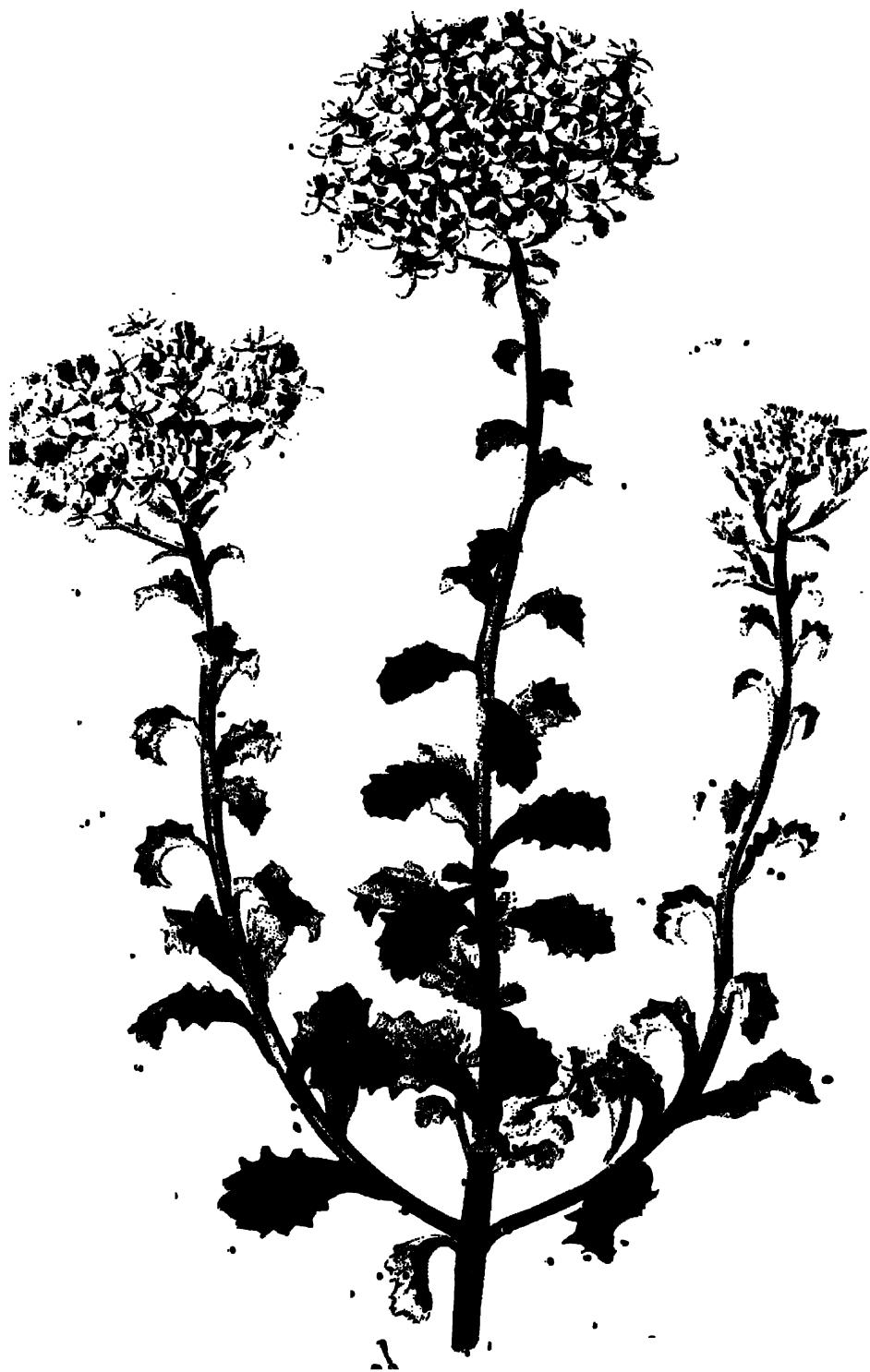
same with the one he has referred to in Mr. Lambert's Herbarium.

We have seen no figure of this gay flower in any work, except the diminished uncoloured engraving in the Dutch publication we have cited above. Yet the species has continued very generally to enliven our collections, at the close of each succeeding year, from that of 1710 to the present.

A perfectly hardy perennial, thriving in almost any situation. Stem from seven to eight feet high, upright, brownish red, hispid, flexuose above and divided into a loose broad fastigiant panicle of simple flowerbearing branches. Leaves cordately stemclasping, linear-lanceolate, narrow, three inches or more in length, gradually diminishing, subhispidly villous; lobes at the base deep. Flowers largish, disposed at the end of the branches in few-flowered close corymbs; peduncles very short. Calyx campanulate; leaflets in few ranks, green or party-coloured, lanceolately linear, pointed, villous, equal to, or higher than the disk of the flower. Ray varying from deep blue to purplish red. Florets of the disk yellowish, with a short brown-purple limb; segments ovate, pointed. Anthers enclosed. Stigmas 2, yellow, linear, divergent. Germen silky, oblong: hair of the pappus or crown inclined to tawny.

The drawing was made in November last, at Messrs. Whitley, Brames, and Milne's, in the King's Road, Parson's Green, Fulham.

a A floret of the disk. *b* A floret of the ray. *c* The calyx, with the enclosed receptacle deprived of all the florets, and dissected vertically.



SELAGO fasciculata.

Cluster-flowered Selago.

DIDYNAMIA GYMNOSPERMIA.

Nat. ord. VITICES. Jussieu gen. 106.

Div. III. Genera Viticibus affinia.

SELAGO. *Cal. tubulosus 4-(5-) fidus inaequalis. Cor. tubo brevi aut filiformi longiori, limbo 3-5-fido aequali aut inaequali. Stylus 1; stigma 1. Semen 1-2, calyce tectum. Herbae aut suffrutices; folia alterna; flores in plurimis Eranthemo et Verbenae affines, irregulares tubulosi 1-2-spermi, alterne spicati terminales, spica simplici aut multiplici; in paucis regulares tubo brevi 2-spermi subcorymbosi terminales, sorgèn in genere ordine depellendi.* Jussieu l. c. 110.

S. fasciculata, corymbo multiplici, foliis obovatis glabris serratis. Lin. Mant. 250.

Selago fasciculata. Lin. syst. veg. ed. 14. 568. Willd. sp. pl. 3. 183. Jacq. ic. rar. 3. t. 496. coll. 3. 246. Hort. Kew. 2. 355. ed. 2. 3. 432.

Caules ascendentes v. erecti scutati, sesquipedales, fruticosi, teretes, (opposito-) ramosi, inferne lignosi et fusi, calatum et ultra crassi. Folia conferta (nunc laxa) ramos (virentes) tolos obcordata, (sparsa) alterna, vix uncinalia ($\frac{1}{3}$ partes uncis longa superne versus decrescentia in bracteas) obverse ovata (deorsum subpetiolatum attenuata) acule (inciso-dentata) serrata, rigidula, crassula (coriacca), modice decurrentia, ad basin integerrima, latè virentia, utrinque glabra, subamarantia. Corymbi (ex spiculis inferne foliolosis supra densè floriferis in foliis supremis bracteaceo-diminutis axillaribus vnde sparsis approximatis fastigiantibus compositi) terminales, fasciculati, densi, convexuli, omnes simul unam alterante unciam diametro aequantes. Bracteæ (singulares) ad singulos flores lanceolatae, austræ, concavæ, calycem amplectantes, eoque duplo longiores, viriles. Flores fortiter et gratae olentes, calyce pallido, corolla pallide carulea, germe viridi, filamentis styloque albis, antheris sulphureis. Cal. profunde 5-sectus, persistens: segmentis linearibus, obtusulis, concavis, erectis, aequalibus. Cor. 1-petala: tubus angustè infundibuliformis, parum incurvus, calyce serè duplo longior. Limbus 5-fidus, patensissimus, tubo duplo brevior: lacinia oblongis, obtusis, planis: 2 in exterioribus brevioribus minùsque profundiè sectis, constituentibus veluti labium. superius corollæ inversæ. Fil. capillaria: tubo corollæ inrigata: 2 exteriora longiora corollam aequant. Anth. oblonge (capitatae, apice dilatato filamenti adnato-incurvantes) transversè aequali apice dilatato filamento. Ovrm. obverse ovatum, compressum obtusum. Stylus filiformis, erectus, statim in longior. Stig. simplex obtusum. Jacq. nonnullis ex nobis additis.

A dwarf shrub; native of the Cape of Good Hope, from whence it was introduced in 1774 by the late Mr. Masson.

Stem ascendent or nearly upright, round, about a foot and half high, woody ~~and~~ brown-barked below, of the thickness of a common pen or thicker. Leaves closely, or

sometimes loosely scattered round the whole of the green branches, scarcely an inch in length, diminishing as they ascend to the form of bractes, obversely ovate, tapered towards their base into a kind of petiole, deeply and widely serrate, with pointed teeth, of a thick leathery substance and stiff, slightly decurrent, entire or unindentated at the sides below, bright green; entirely smooth, of a bitterish taste. *Corymbs* compound, terminal, crowdedly fasciculate, convex, from one to two inches over, composed of fustigiant closely scattered corymbules leafy downwards, thickly flowered upwards and axillary in the uppermost diminutive leaves. *Bractes* single, one below each flower, lanceolate, pointed, concave, embracing the calyx and nearly twice its length, green. *Flowers* small, of a highly scented fragrance, calyx pale, corolla pale blue, germen green, filaments and style white, anthers sulphur-coloured. *Calyx* deeply five-cleft, persistent; segments linear, rather obtuse, concave, upright, equal. *Corolla* monopetalous or of one piece; *tube* narrow-funnelform, slightly curved, nearly twice as high as the calyx; *limb* or border five-cleft, spread out, twice shorter than the tube; *segments* oblong, obtuse, flat, two lower ones shorter and less deeply parted, forming the kind of upper lip to the resupinate corolla. *Filaments* capillary inserted in the tube, two exterior equal to the border of the corolla. *Anthers* oblong, capitate, incumbent, adnate to the enlarged apex of the filament. *Germen* obovate, compressed, obtuse. *Style* filiform, upright, longer than the stamens. *Stigma* simple, obtuse.

A hardy greenhouse plant, requiring nearly the treatment of a Cape Heath, and to be planted in a mixture of black peat-mould and hazel-loam. Blossoms in the autumn. The drawing was taken at the nursery of Messrs. Let and Kennedy at Hammersmith. By no means a common plant. We have trusted in a great degree to Jacquin in our description, having missed the opportunity of inspecting the inflorescence until it was too far gone for our purpose.

a Calyx, with the pistil as it appears when the corolla is removed.
The corolla dissected vertically.



Syd. Edwards del.

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STERCULIA Balaṅghas

Crown-flowered Sterculia.

MONOCIA MONADEIPIA. Hort. Kew.

Dodecandra Monogynia. Willd.

Nat. ord. MALVACEÆ. Jussieu gen. 271. Div. VI.

STERCULIACEÆ. Ventenat malmais. 91.

STERCULIA. Cal. coriaceus, quandoque tubulosus, 5-dentatus
sæpius campanulatus, 5-fidus v. 5-partitus; laciniis v. stellatum patentibus
v. arcuatim introflexis. Stipes centralis productus in uregulum 5-dentatum
dentibus 2-3-antheriferis. Germ. 5-striatum intra uregulum inservientem
Stylus 1, germine inæmum. Stig. sublobum. Capss. 5 (aut pauciori
quibusdam abortivis) coriaceæ, uniloc., mono-polyspermæ, (gelatinæ
primam exsudante tumentes Juss.), suturâ interiore dehiscentes marginibz
seminiferis. Embryo albumine carnosæ et bipartibili cinctum ut in plerisque
SAPOTIS. Cotyledones irregulares crassissimæ, v. tenues. Radicula ascer-
dens v. umbilico opposita.

Arbores. Folia alterna, simplicia, aut digitata; petioli sub apice articu-
lati. Stipes quandoque solo germine, quandoque germine v. staminibus or-
batus. Ventenat loc. cit.

S. Balaṅghas, foliis ovatis integerrimis alternis petiolatis, floribus panicu-
latis. Linn. sp. pl. 2. 1430.

Sterculia Balaṅghas. Cavan. diss. 5. 286. t. 143. Willd. sp. pl. 2. 872
Hort. Kew. ed. 2. 5. 338.

Southwellia nobilis. Salisb. parad. lond. 69.

Nux malabarica sulcata mucilaginosa fabacea. Pluk. alm. 266.

Cavalam. Rheede mal. 1. 81. tab. 49.

Arbor excelsus diametro bi-tripedali. Folia membranacea, sparsa, re-
flecta, ovali-v. obverso-oblonga, nudiæ virientia, sesuncalia ad pedalia, triple
fere angustiora quam longa, rachide subtus varicosâ nervis lateribus alternis
distantibus et pilis vagis stellatis puræ conspersis acuminæ abrupto obliquatâ :
petioli teretes utroque fine incrassati: stipulae parvæ rameæ ceduce pubes-
centes, subulataæ. Racemi elongato-flexiles ramorum parte terminali surculosâ
aphyllâ fusco-et stellato-pubescente è propriis geminis paniculatim circum-
nati, plurimi, diffusius divaricati, compositi, laxè multiflori, flexuosi,
fusco-villosi, pedunculis partialibus distantibus pluri-unifloris, pedicellis,
propriis filiformibus divaricatis supra medium articulatis: bractæ minimæ.
Flores in extensus riz semunciam transversi, sordidæ chloroleuci externè sub-
fusco-villosi. Calyx turbinato-campanulatus; limbus 5-partitus, tubo longior,
ex radiato arcuatim connivens, laciniis distantibus lineari-lanceolatis lateribus
reflexis, post anthesin invicem recedentibus. Cor. Or. Stipes fructificationis
longitudine fere dimidii calycis, teres, glaber, erectus, apice dilatatus. Vil. O.
Anth. luteæ summi stipitis margine circumpositæ, loculis didymis. Germ.
ruberrimum, hirsutum, tri-quinquelobo-globosum. Stylus stipitis concolor
versus antheras secundum latus germinis reflexus: stigma pileato-capitatum,
rotundè tri-quinquelobum.

Native of the East Indies, where it grows in rocky and sandy tracts to a large tree, the trunk of which is sometimes from two to three feet in diameter.

The drawing was made last summer from the first of the species cultivated here; still in the hothouse of Sir Abraham Hume at Worinleybury, in Hertfordshire; where it had been introduced by Lady Amelia Hume in 1787.

Willdenow, viewing the column in both the sterile and the fertile flowers as an integral and independent member, has ranked the genus in the class DODECANDRIA. In the Hortus Kewensis, after Linnæus, the genus stands in MONŒCIA MONADELPHIA, the column, when from the failure of the germen it supports only anthers, being designated as the monadelphous union of the filaments of the stamens, and, by a whimsical and arbitrary conversion of terms, when it supports the perfect germen as well as anthers, as the independent and common pediment of both organs. Its true place seems to us to be in MONŒCIA POLYANDRIA.

Leaves, membranous, scattered, reflectent, ovaly or obversely oblong, bright green, from six inches to a foot in length, nearly three times longer than broad, terminated by an abrupt slanted point, midrib prominent beneath nerves lateral alternate distant studded underneath with composite stellate hairs: *petioles* round thickened at both ends: *stipules* growing on the branch, small, subulate, pubescent; caducous. *Racemes* long, flexile, growing from their proper buds in a panicle round the terminal leafless brown and stellately pubescent shoots of the branches, many, diffusely divaricate, composite, loosely many-flowered, flexuose, brownly villous; *partial peduncles* distant, from one to several flowered; *proper pedicels* filiform, divaricate, jointed above the middle: *bractæ* minute. *Flowers*, when extended, scarcely half an inch across, of a dull yellowish or greenish white, externally brownly pubescent. *Calyx* turbinate-campanulate; *limb* 5-parted, longer than the tube, segments converging archwise and united at their points with open intervals, lanceolately linear with reflectent sides. *Column* half the length of the calyx, round, smooth, upright, dilated at top. *Anthers* didymous, placed round the rim of the apex of the column. *Germen* scarlet, hirsute, 3-5-lobed, globular: *style* bending downwards along the side of the germen, that the stigma may reach the anthers: *stigma* 3-5-lobed, rounded.

a The column bearing the germen and anthers.



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PITTOSPORUM revolutum.

Yellow Pittosporum.

PENTANDRIA MONOGYNIA.

Nat. ord. Pittosporaceæ. Brown in append. to Flinders's voy. 2. 542.
PITTOSPORUM. *Cal. pentaphyllus, inferus, deciduus, foliol subæqualibus. Cor. pentapetala, petalis infernè in tubum cohærentibus supernè acutis recurvis. Stam. hypogyna, cum petalis alternantia; inclus. Germ. superum: stylus unicus: stig. subcapitatum. Caps. 1-loc., styl. umbilicata, bi-aut trivalvis, polysperma; valvulis medio septiferis: sen. angulata septo inserta, dupli serie superposita: embryo minutus, prop. umbilicum, inclusus albumine carnosæ. Frutices v. arbores, inordinatè rimosi, fr. alia alterna, brevi petiolata, exstipulata, integerrima; flores terminale axillares, subracemosi, bracteati. Bonpland loc. infrà cit. 56.*

P. revolutum, foliis ellipticis obtusiusculis subtus pubescentibus ~~margin~~ revoluto. *Dryander in Hort. Kew. ed. 2. 2. 27.*
Pittosporum tomentosum. *Bonpland nov. & malmais. 1. 57. t. 21.*
Pittosporum flavum. *Rudge in trans. linn. soc. 10. 298; cum iconè ad sicum delincatâ.*

Frutex erectus, caulescens, sparsè ramosus; rami teretes, infernè versi nudiusculi v. foliis paucis vagis, in surculis novellissimis ferrugineo-tomentosæ crebriusque foliati. Folia sparsa, obvèrsè ovali-oblonga acumine ab abrupt breviante varie producto, deorsum longè attenuata, subtus luniginaosa vel potius tomentosa in junioribus tomento denso ferrugineo, tri-quadrangularia, latitudin uncidiæ v. sesquicunclia, suprà glabra, saturatè virentia, margine brevi reflexa cincta. Flores pallido-flavi, nutantè et simpliciter racemosi terminales: per dunculo recurvo tereti subviscoso-tomentoso, ferrugineo, uni-biuncidatis v. ultrà supernè florifero, pedicellis plus minus fastigiantibus, nunc quasi umbellatis bracteatis, bracteis foliatis calycinis similibus, apice reflexis. Cal. patens pallidè virens, extus viscoso-villosus, corollâ & brevior; foliolia lanceolatis parùm inæqualibus, intus glabris. Tubus corollæ triplo longior limbo, pallidus, cylindricus, subventricosus, suturis 5 ubi cohærent unguis petalorum striatus, intus viscosus; laminæ limbi flavæ, læves, oblongæ, obtusæ, primò patentes, inde revolutæ. Fil. alba, longitudine tubi. Anth. furvo-fulvæ, ex apice emicantes, sagittato-oblongæ, dorso longè suprà basin appensæ, intraversæ, rimâ latrali ultrinque dehiscentes: pollen flavum. Germ. oblongus, densè ferrugineo-hirsutus, bilocularis, succo resinoso scatens, ovoidis numerosis: stylus teres, strictus, duplo brevior grypine, virens: stig. pileato-v. depresso-capitatum.

Pittosporæ is the name of a natural order defined by Mr. Brown, in a treatise on the vegetation of Terra Australis, which forms the Appendix to the Voyage of Captain Flinders. In this valuable tract, besides the illustration of the characters of the so termed natural orders or families of vegetables, a laborious and judicious attention

has been devoted to mark out their geographical distribution; a subject interesting as a part of their history, and important as the probable means of arriving at the knowledge of the general law which regulates that distribution. In justice to our readers, we shall extract the paragraph which relates to the group comprising the subject of the present article.

“ Authors have generally been disposed to consider *PITTOSPORUM*, *BURSARIA*, and *BILLARDIERA*, as belonging to “ *Rhamnæ* or *Celastrinæ*, from both of which they are “ certainly widely different; and they appear to me to “ constitute, along with some Australian genera, a very “ distinct natural family. *Pittosporæ* form a small tribe, “ chiefly belonging to Terra Australis, where most of them “ have been observed in the principal parallel; but certain “ species of all the published genera exist at the south end “ of Van Diemen’s Island, and both *PITTOSPORUM* and “ *BURSARIA*, are found within the tropic. *PITTOSPORUM*, the “ only genus of the order which is not confined to Terra “ Australis, has the most extensive range in that country, “ and has been found in many other parts of the world, “ namely, New Zealand, Norfolk Island, the Society and “ Sandwich Islands, the Moluccas, in China, Japan, and “ even Madeira. It has not, however, been observed in “ any part of America.”

The present species is native of New South Wales, and was introduced by Sir Joseph Banks; and altho’ present in our gardens in 1795, has been figured by Mr. Rudge in 1811, from a dried stick, as the substitute of an erroneously supposed absentee.

An upright shrub, about three or four feet high, scatteredly branched; branches round, nearly leafless downwards, leafy at the new shoots, where they are covered with a tomentose russet nap. *Leaves* scattered, obversely and ovaly oblong, with a variously tapered point, sometimes abrupt and short, sometimes equably extended, all farther tapered towards the base, three or four inches long, an inch or an inch and half broad, above smooth and green; underneath, when full grown, grey and downy, when young, tomentose and russet coloured, edge shallowly reflectent. *Flowers* pale yellow, terminal, in a simple nodding raceme, sometimes scarcely extending beyond an umbel-like corymb; *peduncle* round russet-coloured, subglandularly tomentose; from one to two inches long or more;



DONIA glutinosa.

Limy-leaved Donia.

SYNGENESIA POLYGAMIA SUPERFLUA.

Nat. ord. CORYMBIFERÆ. Jussieu gen. 177.

*Div. II. Receptaculum nudum. Semen papposum. Flores radiati; (in *Tussilagine* et *Senecione* partim flosculosi.)*

DONIA. Recept. nudum. Pappus setaceus, caducus. Calyx imbricatus, hemisphaericus. Brown in Hort. Kew. ed. 2. 5. 82.

D. glutinosa, frutescens; foliis oblongo-obcuncatis sessilibus serratis, calycinis squamis linearibus erectis. *Pursh amer. sept.* 2. 559; (*in obs. ad DONIA squarrosum*).

Donia glutinosa. *Brown in Hort. Kew. ed. 2. 5. 82.*

Doronicum glutinosum. *Willd. sp. pl. 3. 2115.*

Aster glutinosus. *Cavan. ic. 2. 52. t. 168. Desfontaines in ann. du mus. 2. 34.*

Suffrutex sempervirens erectus glabro-viscosus erectissimè ramosus, bitripedalis; caulis teres, pallidus; rami albidii, angulati, flexuosi, uniflori, foliosi. Folia distantia, sparsa, erecto-patentia, obovato-oblonga, mucronata-acuta, reticulato-venosa viscosa-porosa, margine serrulato-scabra, aculeè dentata vel nunc deitibus nonnullis acutis tantummodo versus apicem incisa, amplexicaulia, tritervi-decurrentia, lobulis 2 baseos ex corum margine interiori longè infra rachidem folii adnatis ranno; floralia pauca (subtrinæ), subdifformia, ovario-v. oblongo-lanceolata. Flores lutei, terminales, subsessiles, solitarii. Cal. plurimo ordine polyphyllus, herbaceus, squarroso-imbricatus, visco copioso obdintus; foliola basi arctè appressa, lanceolato-linearia, exiliò convexula, inferiora mucronata angustiora recurvo-divaricata, superiora erectiora patula, suprema membranosa, albicantia, appressa. Radius uniserialatus, multiflosculosus, duplo longior calyce, flosculis longè tubulosis, apicè bidenticulato-emarginatis, biplicatis; germ. turbinato-oblongum quinerve, angulosum; pappus sessilis aristaceus, plumosus paucus, inqualis, incurvulus: stigmapata exserta tubo. Discus flosculis luteo-pallentibus, aquatibus calyci, labris, dentibus erectis acutis: anth. inclusa, polline flavo: stigmapata 2 linearia tota exserta: germ. radix simile. Receptaculum planum, foveolatum, foveolarum marginibus dentato-scabratum.

A genus instituted by Mr. Brown, in the late edition of the Hortus Kewensis. The character principally relied upon for technical distinction, is a harshly caducous seed-crown or pappus.

The present species is native of Mexico, and was first introduced by Mr. Aylmer Bourke Lambert in 1803. We have another (*squarrosum*) in our collections, which comes from the banks of the Missouri.

A suffrutescent evergreen, 2-3 feet high, upright, smooth viscous, with a round branching pale brown stem; branches remarkably upright and straight, white, angular, flexuous, leafy, one-flowered. *Leaves* far apart, scattered, upright, patent, obovately oblong, mucronately pointed, reticulately veined, porously viscid, serrulately roughed at the edge, and generally indented at the upper portion by several sharp pointed teeth, sometimes round the whole edge, stemclasp-ing, decurrent by three nerves, the two lobules at the base growing by the inner edge to the stem, considerably farther down than where the midrib is attached: *floral ones* about three, of a rather different form, ovate or oblong-lanceolate. *Flowers* bright yellow, terminal, nearly sessile, solitary. *Calyx* of numerous leaflets in several ranks, herba-ceous, squarrosely imbricated, suffused more copiously with viscous secretion than any other part of the plant; *leaflets* close at the base, lanceolately linear, externally a little revex, lower ones mucronate narrower spreading and recurved, upper upright slightly patent, innermost membranous, whitish, applied closely to the flower. *Ray* of one rank, with many *florets*, twice as long as the calyx; tube of the florets long, lamina or blade with a double plait, indented at the end with two minute teeth: *germen* turbinately oblong, five-nerved, angular: *pappus* sessile, awnlke, feathered, of few pieces, unequal, slightly incurved: *stigmas* 2, linear, protruded above the tube. *Disk* with very pale yellow *florets*, equal to the calyx, smooth, with small upright pointed teeth: *anthers* enclosed; *pollen* yellow: *stigma* two, linear, extruded their whole length: *germen* like that of the ray. *Receptacle* flat, pitted, roughened over by the dentately extended margins of the small excavations or pits in which the germens stand.

The drawing was taken in February at the nursery of Messrs. Whitley, Brames, and Milne, King's Road, Parson's Green, Fulham. Cultivated in the greenhouse, and is in flower most part of the year. Requires no particular attention in the culture of it.

a A floret of the disk. *b* A floret of the ray. *c* The calyx dissected vertically, showing the naked receptacle of the flower.



Illustration by J. Thompson it was 170' linearly April 1 1841

PASSIFLORA angustifolia.
Narrow-leaved Passionflower.

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in annales du muséum. 6. 102.
PASSIFLORA. Suprà vol. 1. fol. 13.

P. angustifolia, foliis inferioribus trilobis acuminatis, superioribus indivisis lanceolatis, petiolis biglandulosis, floribus apetalis. Willd. sp. pl. 3. 616.

P. angustifolia. Swartz prod. 97. Fl. ind. occid. 2. 1133. Hort. Kew. ed. 2. 4. 151.

P. heterophylla. Hort. Kew. 3. 309. Jacq. hort. Schœnb. 2. 28. t. 182.
— Miss Lawr. passionfl.

P. longifolia. Lamarck encyc. 3. 39. Cavan. diss. 10. 446. t. 270.

Caules plures, fruticosi, teretes, glabri, graciles, 4-pedales et ultra, ramosi, getate suberosi et cincrei, cirris simplicibus longisque scandentes. Folia infima ex subrotundo-ovata obtusa et vix uncialia; dein unum aliudve duplo majus, acutum, et in unico aut in utroque latere in lobum excisum. Reliqua sunt elongatae vel lineari-lanceolatae, acuminatae, iindivisa, basi rotundatae, longiora semipedalia et inferne 3 quartas partes uncia lata. Cæterum omnia alterna, integrina, peltata, saturatae virentia, ad oras et ad nervum medium dorsalem per lentem villosula, cæterum glabra, adultiora ad nervum et venas in facie ex cinereo maculata. Petioli ad lentem villosuli, supra medium duabus glandulis obtusis instructi. Stipulae subulate, paræ. Pedunculi uniflori, oppositi, laterifolii, filiformes, superne geniculati, semunciales. Flores parvi. Calycis quinque-partiti foliola oblonga, obtusa, patentissima, ex viridi albida. Cor. 0. Corona radiata, interior (operculum) erecta, brevis purpurea; exterior patentissima, flavescens. Anth. flava. Germ. glabrum. Stig. flavescens. Bacca ovalis, semuncialis, glabra, atrocaerulea, pulpa dulci: sem. compressula, cinerea cum rugis elevatis nigricantibus. Jacq. loc. cit.

A small inconspicuous flowered climber, which mingles itself among bushes in the island of Jamaica. Introduced into this country about 1773.

• Stem shrubby, about four feet high, slender, round, branching, smooth, ash-coloured, with a corky rind in the old wood. Lowermost leaves three-lobed, upper entire long-lanceolate, 3-6 inches long, about $\frac{1}{4}$ of an inch broad, rounded or subcordate at the base, nerved, deep green; inspected through a magnifier the edge and the underside of the midrib are perceived to be slightly villous: petioles short obscurely villous, bearing two small glands beyond the middle: stipules 2, subulate, small. Peduncles axillary, twin-

opposite, filiform, about half an inch long, jointed above the middle, ~~flexile~~, one-flowered. *Flowers* small. *Calyx* greenish white, from patent to reflectent; segments long, obtuse. *Corolla* none. *Crown* double, outer rank of rays yellow, longest, entirely patent: *operculum* or lid of the nectary violet-coloured. *Anthers* yellow. *Germen* smooth. *Stigmas* yellowish. *Capsule* oval, about half an inch long, smooth, of a black-blue colour, with a sweet pulp: *seeds* somewhat flattened, grey, with raised black wrinkles. We had no opportunity of observing the flower after the drawing was made; and have trusted to the authors who have described it, for the above.

The drawing was made from a plant which flowered in the hothouse at Messrs. Whitley, Brames, and Milnes, at Parson's Green.

a An inner ray of the crown. *b* An outer ray of the same. *c* The operculum or lid of the nectary. *d* The dissepiment or partition of the nectary. *e* A segment of the calyx.



MALPIGHIA fucata.

Rouge-flowered stinging Barbadoes-Cherry.

DECANDRIA THIGYNIA.

*Nat. ord. MALPIGHIA. Jussieu gen. 252.**Div. II. Germen simplex. Fructus monocarpus.**MALPIGHIA. Suprà vol. 2, fol. 96.*

M. fucata, ramis glabris, foliis ellipticis nitidis subtè decumbenti-hispidi-
supèr nudiusculis; floribus axillaribus umbellatim cōymbosis: apetalis
summo submajore margine lacinulato.

Arbùscula erecta, ramosa, glabra. Folia 4-angulata ultràve elliptica
acuta, nitida, intènse viridia, costato-nervosa, sublùs hispida aculeis scitior
mibis bicuspidiatis fragilibus urentibus fulvis longitudinalibus à medio affixi
superficie folii parallelo-approximati, suprà iisdem obsolescentibus rariè
consita. Pedunculi (tripartiti?) corymbo-umbellati, axillares, positi
brevisimi: pedicelli plurimi, uni-binoculares, uniflori, bracteati interstincti
robusti, teretes, suprà subclavati, paulò altius basi geniculò bisquamuloso arti
culati. Cal. parvulus segmentis 5 ovato-oblongis obtusis concavis, germin
adaptatis, dorso carunculâ didymâ elevatâ ellipticâ poris 2 mediis guttiferi
pertusâ angustis. Cor. irregularis, rotato-explanata, carnosa, firma, albido
roseâ: pet. cochlæari-spatulata, distantia, 3 superiora majora lacinulato
dentata, medio cæteris submajore hastato-rotundo atque insigniùs inciso; 2 im-
hastato-orata, integra. Stam. longitudinali unguium petalorum; infra mediis
monadelpha, suprà conniventia: anth. oblongæ, flavæ, ad basin filamentis
brevis tubulato infixa, bilocularis, introrsum dehiscentes, loculis collateraliter
adnatis parti plane intraversæ receptaculi crassi oblongi physticæ carinati.
Germ. nitens, ovato-oblongum, rotundatè trigonum; stylis tribus foliiformibus
continuis parùm brevioribus, sine stigmatoso plano-obtuso: Flores claus
pentagono-globosi, iisdem clavis KALMIE latifoliæ non dissimiles.

We have not traced the present plant in any published species. It is throughout upon a far larger scale than *urens* of the 96th article of this work. Said to have been received from Germany a few years back by Messrs. Whitley, Brames, and Milne, of the Parson's Green nursery, where the drawing was taken. Probably native of the West Indies; requires to be kept in the bark-bed of the stove, where it flowers for a long time in succession, and at various seasons.

• *MALPIGHIA* is separated from *BANISTERIA*, which resembles in flower and habit, by its unilocular three-stoned drupe, in which the stones or nuts are one-seeded; the fruit of the latter being three one-seeded stonyards or

with a simple wing at the end of each, like those we see on the common Maple.

Fucata forms an upright branching smooth shrub, not exceeding 3 or 4 feet in the specimens we have seen. *Leaves* 4 inches long or more, elliptic, acute, bristled beneath with decumbent brittle stinging double-pointed prickles fastened at the middle, as in other species of the genus, above nearly free from this armature. *Peduncles* opposite, axillary, umbellately coryinbose, very short: *pedicels* many, an inch or two in length, one-flowered, parted by bractes, substantial, round, somewhat thickened towards the flower, with a double-scaled knee or joint, a little above the base. *Calyx* small, green, segments ovate-oblong, obtuse, concave, fitted to the germeu, each with a two-pored prominent elliptic twin caruncle nearly equal to itself at the back. *Corolla* irregular, rotate, fleshy, brittle, of a whitish pink colour: *petals* spatulate, distant, with a narrow unguis and broad lamina; three upper ones larger jagged or unevenly indented, the middle of the three rather the largest hastately orbicular and more markedly cut at the edge; two lowest hastately ovate, entire. *Stamens* the length of the unguis of the petals, monadelphous below the middle, distinct and connivent above: *anthers* oblong yellow, inserted by their base at the point of a short subulate filament, bursting inwards, the two cells growing to the flat introverted front of the thick oblong receptacle with a keeled back. *Germen* shining, ovate-oblong, rounded-trigonal, with three filiform scarcely shorter continuous *styles*; each having a blunted point for *stigma*.

The corolla, when closed, reminds us of that of the well-known *KALMIA latifolia* in the same state.

a The calyx when the corolla is removed. *b* The stamens. *c* The pistil: *d* An unripe drupe with the three persistent styles. *e* A transverse section of the same, showing the three imperfect nuts or stones.



EUPHORBIA punicea.

Scarlet Spurge.

DODECANDRIA TRIGYNIA.

*Nat. ord. EUPHORBIÆ. Jussieu gen. 385.**Div. I. Styli plures definiti, saepius tres.*

EUPHORBIA. Hermaphrodita. *Cal.* 1-phyllus turbinatus, limbo 4-5 dentato, dentibus inflexis. *Petala* 4-5, calyci alternè dentibus calycinis externè inserta, formâ varia, crassiuscula, nunc glanduliformia, nunc simplicia, nunc 2-3-fida aut rariùs multifida. *Stam.* indefinita 12 aut plura, rariùs pauciora; *filamenta* receptaculo inserta, medio articulata, diverso tempore erumpentia; *antheræ* didymæ. *Istis* fertilibus interisciuntur alia sterilia paleacea, aut squamiosa, definita aut saepius indefinita, simplicia aut saepius ramosa vel fibrigata. *Germen* inter stamina centrale stipitatum 3-gonum; *styli* 3. *Capsula* stipite reflexo extrâ calycem nutans 3-cocca 3-sperma. *Plantæ lactescentes, herbaceæ aut fruticosæ, erectæ aut rariùs repentes, aphyllæ aut saepius foliosæ.* Jussieu gen. 385; (nonnullis variatibus).

E. punicea, umbella quinquefida; trifida, involucellis ovalibus acuminatis coloratis, capsulis glabris soliis obovato-lanceolatis subtus glaucis. Swartz prodr. 76.

Euphorbia punicea, Swartz ind. occid. 2. 873. Hort. Kew. 2. 143. ed. 2. 3. 167. Smith ic. pict. 3. Jacq. ic. rar. t. 484: coll. 2. 179. Willd. sp. pl. 2. 916.

A favourite decoration of our hothouses. Introduced from Jamaica in 1778, by Mr. Wallen. It is a smooth fleshy-wooded milky shrub, attaining sometimes the height of seven feet. In the present specimen Mr. Edwards appears to have met throughout with only two leaflets to each scarlet partial involucre: the number varies to 3. •

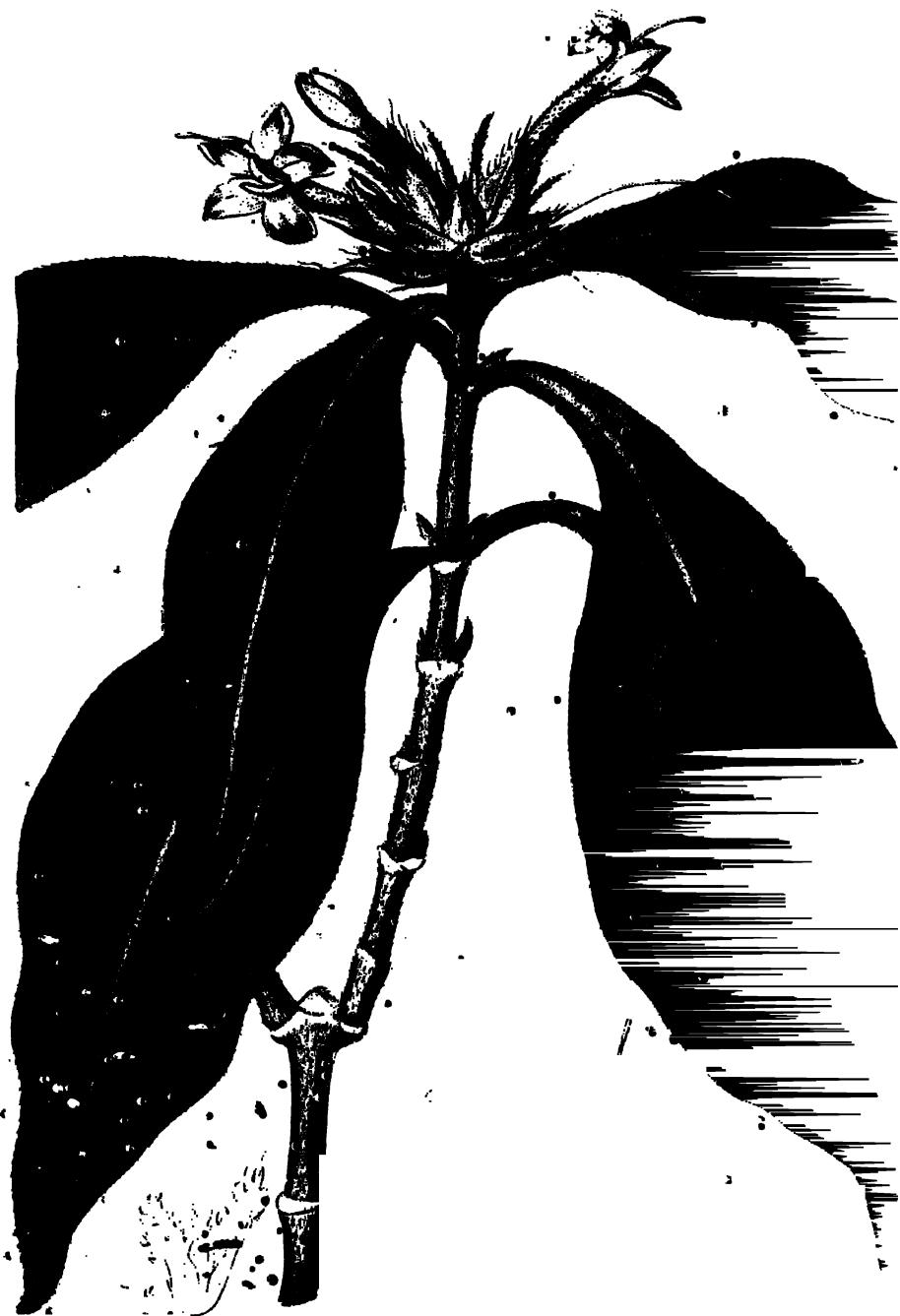
In place of the detailed description of the species, we have subjoined, from Mr. Brown's instructive treatise on the botany of Terra Australis, in the Appendix to Flinders's Voyage, an opinion of the structure of the flower, formed subsequently to that laid down by Linnæus, which still continues the routine precedent of the systematic catalogues.

The view I take of the structure of *EUPHORBIA* is, in one important particular at least, different from those given by Lamarck, Ventenat, Richard and De Candolle, though possibly the same that Jussieu has hinted at; so briefly, however, and I may add obscurely, that if his opposition be really analogous to what I shall presently offer, he has not been so understood by those who profess to follow him in this respect. •

“ With all the authors above quoted I regard what Lin-
“ næus has called calyx and corolla in *EUPHORBIÀ*, as an
“ involucrum, containing several staminiferous flowers,
“ which surround a single pistilliferous flower: By some ^{of}
“ these authors the staminiferous flowers are described as
“ monandrous (one-stamened), and in this respect, also, I
“ agree with them; but the body which all of them describe
“ as a jointed filament, I consider to be made up of two
“ very distinct parts, the portion below the joint being the
“ footstalk of the flower, and that above it the proper
“ filament: but as the articulation itself is entirely naked,
“ it follows, that there is no perianthium; the filiform or
“ laciniated scales, which authors have considered as such,
“ being on this supposition analogous to bracteæ; the pis-
“ tilliferous flower, in conformity with this supposition, has
“ also its pedunculus, on the dilated, and in a few cases
“ obscurely lobed, apex on which the sessile germen is
“ placed. If this be a correct view of the structure of
“ *EUPHORBIÀ*, it may be expected that the true filament, or
“ upper joint of what has commonly been called filament,
“ should, as in other plants, be produced subsequent to the
“ distinct formation of the anthera, which consequently will
“ be found at first sessile on the lower joint or peduncle,
“ after that has attained nearly its full length; and accord-
“ ingly this proves to be the case in such species as I have
“ examined. Additional probability is given to this view by
“ the difference existing between the surfaces of the two
“ joints in some species. I consider it, however, as abso-
“ lutely proved by an unpublished genus of this order, hav-
“ ing an involucrum nearly similar to that of *EUPHORBIÀ*,
“ and like it, inclosing several fasciculi of monandrous
“ staminiferous flowers, surrounding a single pistilliferous
“ flower; but which, both at the joint of the supposed fila-
“ ment, and that by which the germen is connected with
“ its pedicellus, has an obvious perianth, regularly divided
“ into lobes.”

The drawing was made at Mr. Creswell's, of the Priory,
Battersea,

^{a f} The pedicled germen of Linnaeus: the peduncled pistilliferous flower and sessile germen of Brown. ^b The barren filaments of L.: the bracts of B. ^c The stamens of L.: the monandrous peduncled flowers of B. ^d The calyx of L. ^e The corolla of L.; which two last are considered together as the involucrum of the flower by Mr. B.



BARLERIA *mitis.*
Yellow thornless Barleria.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. ACANTH. *Jussieu* gen. 102. **Div. I.** Stamina 4 didynama.
ACANTHACEÆ. *Brown* prod. 1. 472.

BARLERIA. *Cul.* 4-partitus inaequalis, lacinis 2 lateralibus angustioribus, 2-bracteatus bracteis interdum spiniformibus. *Cor.* infundibuliformis 5 fida, lacinia quintâ profundiore. *Stamina* 2, cæteris multò breviora. *Stigmata* 2, rariùs 1. *Caps.* subtriangularis, dissepimentum absque unguibus dissiliente, loculis 1-2-spermis. *Suffrutescens aut herba;* *foliorum axillæ i-* quibusdam spinosæ, spinis solitariis aut gignitatis; *flores axillares* aut terminales. *Jussieu* gen. 103.

Div. Inermes.

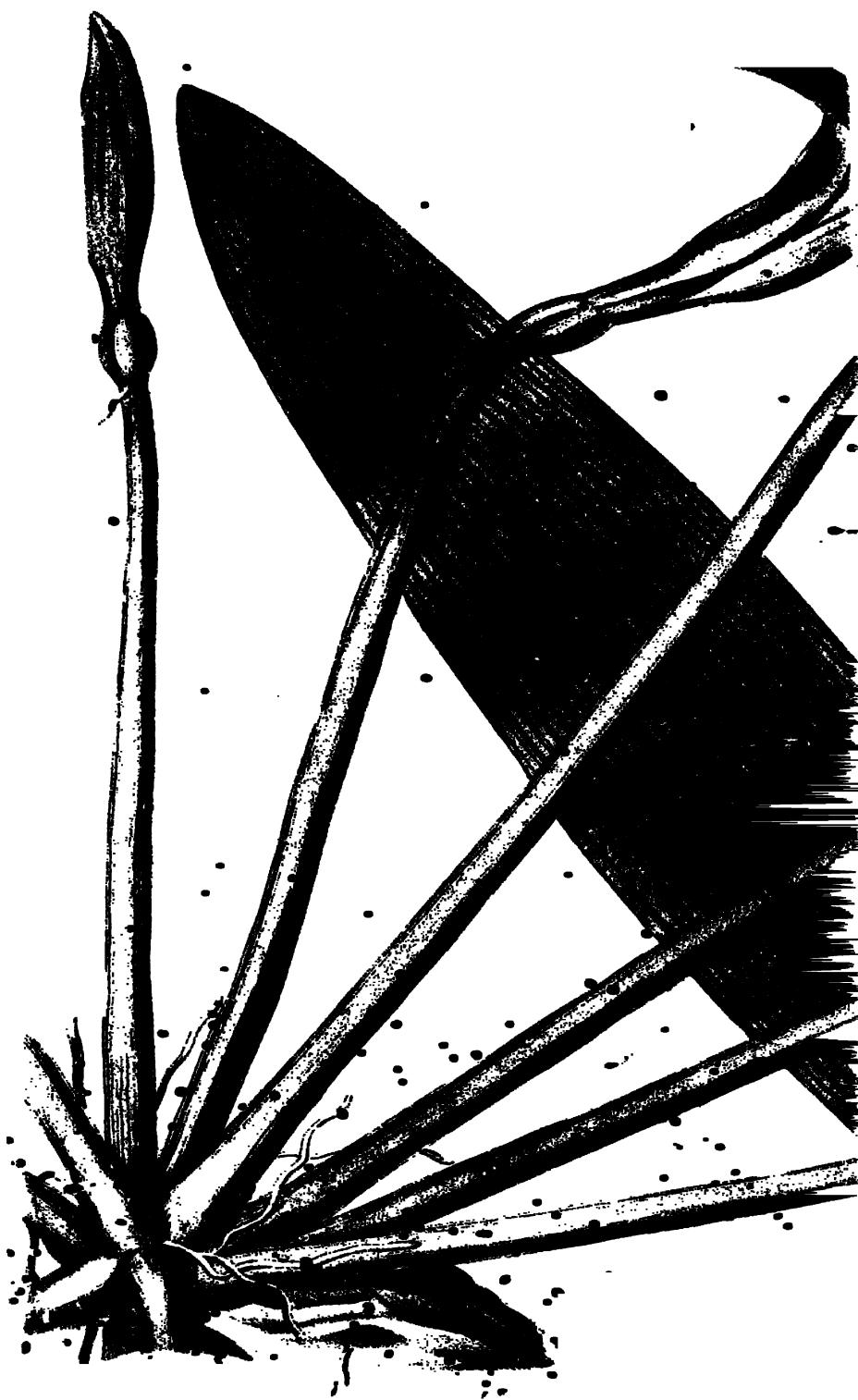
B. mitis, inermis; foliis lanceolatis appresso-hirtis integerrimis; floribus, aggregato-terminalibus tubato-elongatis: bracteis angustissimis subulatolinearibus setoso-ciliatis.

Frutescens, erecta, ramosa ramis infernæ nudis. Folia opposita, patentissima, ad rumorum apices conferta, lanceolata, nervosa nervis ascendentibus subtus varicosis atque pilis appressis setaceis densis consitis, 5-uncialia, latitudine sesquiancialia, deorsum longius attenuata in brevem atque crassum petiolatum, subtè pallida reticulato-venosa pilis rarioribus. Flores plures, luteæ, summis ramis sessili?—aggregati, laxi sesquianciales. Bractæ 2 oppositæ calyci arcè suppositæ ferèque eidem aquiloniae angustissimè lineares appresso-hirtæ, setis subr. cunctato-ciliatis. Cul. ut bractæ sed pubescens dentatus glius conspicuioribus praefixis, nervoso-striatus, foliolis 2 majoribus lanceolato-ovatis aristato-acuminatis dimidium corollæ aequalibus v. superantibus, 2 alternis parvulis lanceolato-lineariibus. Cor. tubæformis-cylindrica, extus angustissima; tubus triplo longior limbo vel magis, diametro penne scriptorice medioceris, recurvulus; limbus subtiliatus, subæqualis, lacinis 4, supremis aequalibus oblongis acutulis recurvo-potentibus, imâ quintâ majorc revoluta. Fil. ad lineam parcè barbatam tubum ad altitudinem germinis cingentem insertæ; 2 longiora cum antheris majusculis tubo exsertis, flavis sagittato oblongis, bilocularibus, polline (sub lente) è sphaeralis luteis granuloso: 2 alia ferè triplo breviora, antheris fletis nullis. Germ. pisco brevi cruce cupulato insulens, ovato-acumipinatum, viridiusculum nitidum, biloculare, loculo singulo ovoidis 2 lenticularibus sicuto: stylus albus, tenuis filiformis: stigma simplex?

A plant we have seen in no collection except in that of Messrs. Lee and Kennedy of the Hammersmith nursery, where it first flowered in the tan-bed of the hothouse in February last. — We have not been able to identify it with any published species. We are informed by Messrs. Lee and Kennedy, that the plant was received by them from Paris. Probably native of the East Indies?

An upright branching shrub, without spines; but of the size it may attain we are not yet entitled to speak; branches leafless downwards. *Leaves* about five inches long; one and a half broad, opposite, spreading, crowded towards the end of the branches, lanceolate, entire-edged, covered with a flat-pressed rough nap thickest on their upper surface, much farther tapered towards the short thick petiole than towards their point, pale and reticulately veined at the under surface, nerves ascendent varicose beneath, and thickly set with flat-pressed bristly hairs. *Flowers* yellow, several, about an inch and a half long, of the circumference of a middle-sized pen, loosely aggregate at the end of the branches. *Bracts* two, opposite, close, under the calyx, nearly of the length of that linear, slender, flatly hirsute, indented and bristly ciliated; bristles tawny. *Calyx* pubescent in the same manner as the bracts, except that the bristles which terminate the teeth at their edge are more conspicuous, nervously streaked; two larger leaflets lanceolately ovate, pointed awned equal to about half the length of the corolla or rather more, two alternate small ones lanceolately linear. *Corolla* cylindric, trumpet-formed, downy on the outside; *tube* 3 times longer than the limb, slightly recurved; *limb* or *border* slightly bilabiate, nearly equal, 4 upper segments exactly equal, recurvedly spreading, oblong, rather pointed, the fifth lowest largest and revolute. *Filaments* inserted in the tube on a line with the top of the germen, where a thin bearded pubescence marks the position; *two longer* protruding beyond the tube; *anthers* of a golden yellow, sagittately oblong, bilocular; *pollen* of these (when slightly magnified) granular, granules yellow globular; *two much* shorter, with small effete anthers, concealed within the tube. *Germen* placed in a shallow thick, cupular disk, ovately tapered, shining, bilocular, each cell having two lenticular ovules: *style* filiform, white; *stigma*?

a A flower dissected vertically.



BRUNSVIGIA Josephinæ. *B. angustifolia.**Narrow-leaved Brunswick-lily or Chandelier-flower.*

HEXANDRIA MONOGYNIA.

*Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.
AMARYLLIÆ. Brown prod. 296. Sect. I. Radix bulbosa.
Flores spathacei umbellati, raro solitarii.*

BRUNSVIGIA. *Umbella terminalis pluri-numerosiflora, bracteis intersticta, spathâ communâ bivalvi longior. Cal. O. Cor. tubuloso-6-fida v. hexapetalo-partita, irregularis v. regularis, subæqualis, hypocrateriformis v. infundibuliformis v. stellato-divaricata, raro pseudo-resupinata rictu introrsum obliquato. Fil. disco medio v. tubo inserta, erecta v. declinata, inclusa, alterna longiora. Stylus inclinatus: stigma simplici v. obsoletè trina. Caps. membranacea, sèpè translucida, turbinata v. obovata, alatè v. acutè lobato-trigona, pedunculi clavato-continua; 3-loc., 3-valv. valvis medio septigeris: loculamenta oligosperma, inferne arctata atque cassa: semina angulo interno affixa, modò oblonga cum testâ nigrâ, sèpiùs tuberoso-laxata (non verò ad normam loculamenti) majuscula atque irregulari-rotundata v. pârvula atque sphaerica.*

Bulbus tunicatus, integumentis membranoso-fibrosis multiplicibus corticatus; axis rhizomatosa sèpè de basi extans radiculis crassis, interdùm tuberosi. Folia pauca-plurima, bifaria, brevia elliptica lata ad longa lata atque angusta, ad plurimum tardiora scapo sèpiùs compresso ipsiusque plurimum breviore. Flore tenus AMARYLLIDI hinc, HEMANTHO inde accedit; fructu tenus ad MASSONIAM vergit.

B. Josephinæ, foliis plurimis lorato-elongatis eructo-patentibus glaucis; scapo duplo longiore radiis umbellæ: corolla pseudo-resupinata.

Brunsvigia multiflora. Nob. in Recens. liliac. Redoutæ in Journ. of Science and the Arts 1. 177. col. 2; male quoad speciem.

Amaryllis Josephinæ. Redoutæ liliac. 370, 371, 372.

(α) foliis coriaceo-omnis glaucissimis.

(β) foliis duplo v. triplo angustioribus, viridi-glauciisculis, terrioribus.

Bulbus magnitudine ovi gallopavoacei, integumentis fuscis. Scapus strictus, teres, obsoletè et rotundatè anchys, glaucus, sesquipulalis crassitudine digitæ. Spatha multiflora, sphacelata, valvis ovalo-lanceolatis aliquoties brevioribus pedunculis. Umbella radiata-divaricata, strictissima, distans; pedunculi 6-9-unciales, crassi, recti, rotundatè trigoni, striati, exsulci, glauci, superne violaceo tincti, apice curvaturâ leni deflexi. Flores inodori, coquineo-nuancantes, inferne paucò florâ varii, duplo v. triplo breviores pedunculis. Germ. subobovato-oblongum, rotundatè trigonum; exsulci, striatum, viridi-præpurpureo, glaucum, subsemunciale. Cor. horizontali-assurgens, resupinatam simulans ob labium insum introrsum elevatum et ampulum retrorsum depresso unde rictu introrsum obliquatur (quod non aliâs in genere occurrit nisi in multiflora); infundibuliformis, 3-uncialis magisve, crassius cernosa, rigida, pro 3-4-ibis fissa, externe lucens: tubus crassus tricuspidatus germine aliquantulò longior & subisoperimeter, in faucem cu. vaturâ antica ventricosiore ampliatus: limbis unicolor revoluto-campanatus; laciniæ lanceolatae, concreviusculæ, utrinque obsoletè involutaæ, 3 exteriorè hamato-apiculatae: labium inum v. externum longius, distans, recurvum, assurgens laciniâ mediâ

Before we had seen *BRUNSVIGIA Josephinæ* in the plant, and judging solely from the figure in the *Liliacées*, we conceived it to be of the same species as the *BRUNSVIGIA multiflora*, most correctly represented in the 1619th article of *Curtis's Botanical Magazine*. But a view of the two plants themselves has convinced us that we had judged wrong; they agree, indeed, considerably in appearance, and exactly in the singular character of a counterfeit-resupinate corolla, the irflexion of the two lips of the limb being the reverse of that which is the usual one, while the general posture of the corolla is unchanged. The lower lip is here the ascendant and projecting one, while the upper is the depressed and recedent one—an anomaly in the natural order beyond the two species. Giving too much weight to this remarkable feature, we had neglected other differences when we considered *multiflora* and *Josephinæ* as of the same species.

The present drawing was taken at the never-failing source of curious and beautiful *Liliacées*, Mr. Griffin's collection at South Lambeth: it had been very lately imported by that gentleman from the Cape of Good Hope, where it was collected in the district of Hantam. We had some hesitation in believing our plant to be of the same species as *Josephinæ*; but Mr. Griffin is persuaded that the difference between the two, which indeed consists principally in size, proceeds from his specimen being the produce of a bulb much younger than that from which the figure in *Redouté's work* was taken.

In *multiflora* the leaves are about 4, short, obovately oblong, very broad, bright green, and flatly recumbent on the ground; in our plant they are 9 or more, lanceately elongated, slightly lanceolate, upright, recurvedly patent, and glaucous. There the scape is scarcely longer than the peduncles of the flowers; here twice the length of them. There the peduncles are shorter and trigonal, with three





HYPERICUM aegypticum.

Egyptian St. John's-wort.

POLYADELPHIA POLYANDRIA.

Nat. ord. HYPERICA. Jussieu gen. 254.

HYPERICUM. Cal. 5-partitus æqualis. Pet. 5. Stäm. varie polyadelpha. Styli 3 aut 5 aut rarius 2; stigmata totidem. Caps. (bucca in Androscemo) loculis et valvis totidem. Herbae aut frutices suffruticosa; caules cylindracei aut ancipites aut 4-goni; folia opposita sæpè punctatopellucida; flores oppositi nonnunquam cymosi, plerumque corymbosi pedunculis sæpè trichotomis 3-floris terminalibus aut et axillaribus. Juss.

Div. *Trigyna*, calycibus integrigynis.

H. aegypticum floribus trigynis, nectariis petalorum lanceolatis, caulis suffruticosis compressis. Linn. sp. pl. 2. 1103.

Hypericum aegypticum. Linn. amæn. acad. 8. 323. tab. 8. fig. 3. Hort. Kew. 3. 105. ed. 2. 4. 429. Lamarck encyc. 4. 160. Willd. sp. pl. 3. 1467.

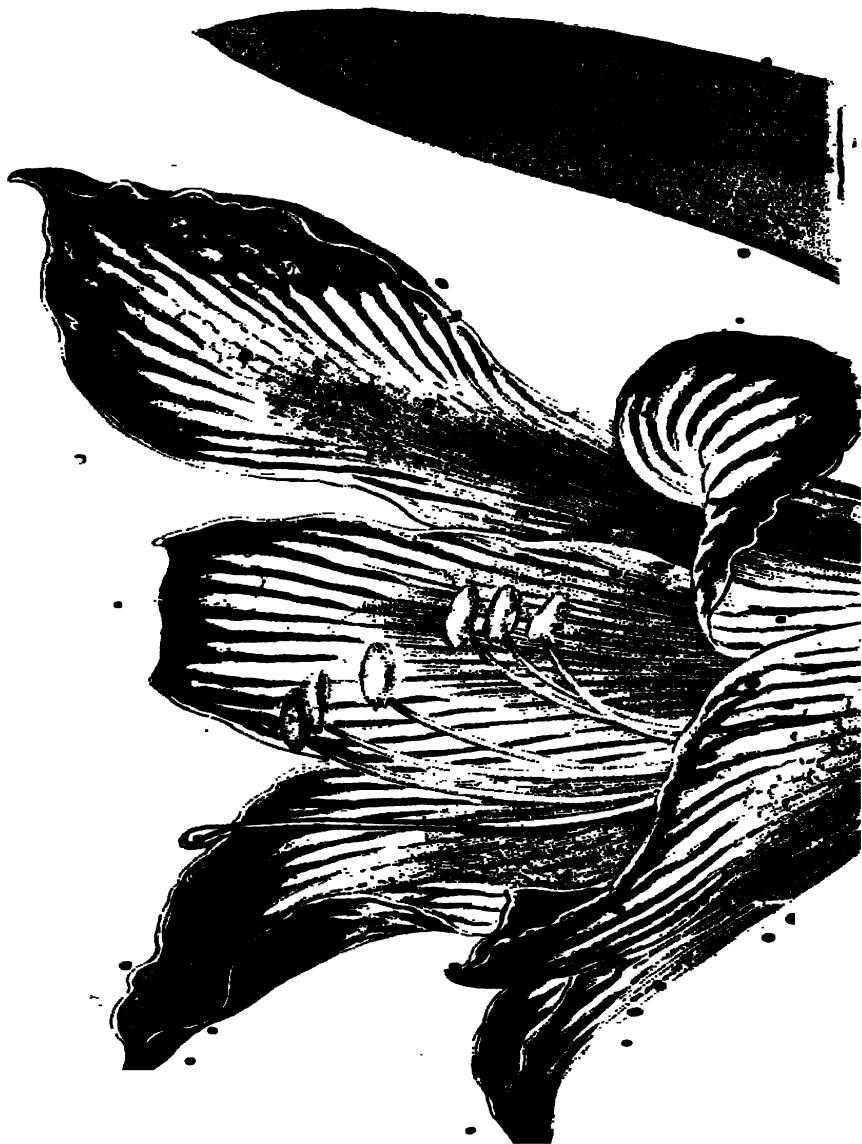
Fruticulus erectus subpedalis, propè de basi brachiato-ramosissimus, floribus; rami teretes paluli, juniores toti foliati ramulisque solitariis brevibus axillaribus subsexfoliatis apice unifloris uno terminali decussato-paniculati. Folia sessilia, decussata, patentia, coriaceo-crassa, glauco-pruinata, subbiliaria, ovato-elliptica, acuta, plana, avenia, non pellucido-punctata, internodiis sublongiora. Flores parvuli, erecti, solitarii, terminales, lutei. Calyx inter bracteas foliaceas 2 oppositas ipsi duplo breviores sessilis, viridi-lutescens, sèpius rubore tinctus, connivens, æqualis unguibus petalorum, persistens; foliola ovata, convexa, acutula integerrima, duriuscula. Cor. campanulata, flava, petiucido-lineata vix $\frac{1}{2}$ partem unciaæ alta; pet. spathulato-oblonga, inferne t. tubum conniventia superne recurvo-patentia, obtusa, squamula linearis ob marginis attenuati inflectionem concavâ uniusquisque unguis longitudinaliter intus adnatâ. Staminum phalanges 3, erector, tubo parum longiores, pede tubuloso compresso pallido supra in filamenta distincta ipsi breviora scedente: anth. subrotunda, flavae, introversæ. Pistillum pallidum, radibus s' amincis brevius, ovato-oblongum, trilobo-trigonum angulis rotundatis: styli 3 loborum totidem rostratim continui, brevissimi; replicati, stigmatibus totidem papuloso-convexis parum latioribus terminati. Corpuscula 3 intra calycem hypogyna subrotunda lutea lobos germinis basi intercipientia. Deflorata corolla arctè connivet calyx.

In Willdenow's Species Plantarum, in the late edition of the Hortus Kewensis, and indeed in the recent enumerations of plants, this species has been deposited in a section of the genus intended for those with serrately and glandularly edged bractes and calyx, while it really belongs to that which comprise such species as have bractes and calyx with a glandless and entire edge; a mistake

perplexing to those who endeavour to determine the plant in any of these works; and which has actually led to its having been very generally confounded by gardeners with *canariense*.

A new genus has been carved from *HYPERICUM*, by the title of *ELOEA*, that includes the present species, but seems to us one of those dismemberments of a well-characterized and consistent genus, which offer no equivalent for the disturbance of innovation.

The present plant is native of Egypt, and was introduced in 1787, by M. Thouin. It is a dwarf brachiately branched shrub, seldom exceeding a foot in height, reminding one, as Linnæus observes, of an *ARENARIA* [Sandwort]. Branches spreading, round, younger ones leafy their whole length, decussately panicled, branchlets short axillary solitary, usually minutely six-leaved with a single flower at the end of each. *Leaves* decussated, spreading, sessile, glaucous, frosted, thick and somewhat fleshy, about two lines long, ovately elliptic, flat, pointed, veinless, not transparently punctured as those of the genus commonly are, rather longer than the intervals between the pairs. *Flowers* small, yellow, upright. *Calyx* sessile between two opposite leaves of about half its own length; *leaflets* greenish yellow, usually more or less stained with red, equal to the tubular portion of the corolla, connivent, persistent, ovate, convex, somewhat pointed, rigid, quite entire. *Corolla* campanulate, transparently streaked, scarcely the third of an inch deep; *petals* spatulately oblong, converging by their *ungues* into a tube; *lamina* spreading and recurved, obtuse; *unguis* with a small raised linear-oblong longitudinal concave *scale* growing to the inside of the lowermost part. *Stamens* polyadelphous, in three sets, upright, a little higher than the tube of the corolla, the lower portion of the filaments of each set compressedly tubular for more than half the length; *anthers* yellow, roundish, facing inwards. *Pistil* pale, shorter than the stamineous pipes, ovate-oblong, three-lobed-trigonal, corners rounded; *styles* 3, extremely short, continuous, divergent, terminated by the same number of convex papillary slightly wider *stigmas*. *Corpuscles* 3, roundish, yellow, surrounding the base of the germen in the furrows which part the lobes. When the corolla decays, the calyx closes over the germen.



AMARYLLIS psittacina.

• *Parrot Amaryllis.*

• HEXANDRIA MONOGYNIA.

• *Nat. ord. NARCISSI. Jussieu gen. 34. Div. II. Germ. inferum.*
 AMARYLLIDÆ. Brown's prod. 296. Sect. I. Rad. bulbosa.
 Flores spathacei, umbellati, raro solitarii.
 AMARYLLIS. Suprà vol. 1. fol. 23.

• *Div. Bi-multifloræ. Tubus coronatus. Folia bifaria.*

A. *psittacina*, biflora, subsemiringens; tubi membranâ brevissimâ bicolori denticulatâ: staminibus inclusis.

Bulbus in colum productus. Folia 7, *lorata*, obtuso-acuminata, glau- ciacula, uiriam v. sesquiuinciam transversa, erecto-divergentia. Scapus (2 successivi) bipedalis, cylindraceo-attenuatus, rotundatè inceps, basi crassi- tultus pollicis v. crassior, rubens. Spatha lanceolata, paulò longior pedun- culis, pallidè rubescens. Pedunculi teretes, stricti, virides, crassitudine penne gallinacea minoris, duplo breviores floribus. Germen obscuro-virens, oblongum, rotundato-trigonum, semunciale v. circâ. Cor. nutans, viridis, puniceo-picta, suprà reticulato-venosa, turbinato-campanulata. 5-uncialis, ab ipsâ base sensim dilatescens, rictu semihiulco semipedem transverso patens: lac- cuncula-ovales, lanceolata, ad. membranam faucialem uaria imbricato-cer- rentes, inde discretæ: exteriore 3 alternae duplo latiores et aliquantum longiores, breviter acuminatae mucronatae non tamen cum hamo, marginie superne undulatae; suprema (ex exteriorebus) depresso-porrecta, distantiæ, 2 uncias lata; laterales 2 superiores (ex interioribus) non multò uncia latiores, ob- longo-lanceolata, divaricato-dispansæ, sursum subobliquantes; laterales 2 in- feriores (ex exterioribus) cum summa consentiente, in una versu decurvo- obliquatæ; ima (ex interioribus una) omniibus angustior, ligulato-lanceolata, acuminata, declivis. Corona faucialis pro spatio unius unciae à fundo di- stans, vix semilineam latu, viridi-punicea: Fil. subæqualia, parum breviora, imâ lacinia fasciculata, declinato-assurgentia, infrâ v. lata, medio albicania, suprà rubentia: anth. obliquo-incumbentes, purpureæ, polline ochroleuco. Stylus inclusus, paulò longior aut crassior filamentis, filiformi-trigonus, puni- cula, stig. ex 3 continuis coadunatis. Flores pulcherrimi, inodori.

The present is the fifth uprecorded AMARYLLIS from the Brazils which has been published in this work out of the collection of Mr. Griffin. To have been the first to bring within the sphere of science and into culture an equal number of plants, belonging to a same remote region, of a same genus, and all interesting, either on the score of curiosity or beauty, within little more than two years, has probably never before been the chance of any single collector in Europe.

The bulb was sent about 3 years ago by Mr. E. Woodford, vol. III.

from Rio Janeiro; and flowered in Mr. Griffin's hothouse at South Lambeth in March last.

Bulb round, with a leafy neck. *Leaves* from upright-spreading, about 7, lorate, obtusely pointed, faintly glaucous, an inch or an inch and a half broad. *Scape* (two in succession) about 2 feet high, cylindric, with 2 obsolete rounded corners, glaucous, purplish at the base. *Spath* inclining to red, a little higher than the *peduncles*; these about half the length of the corolla, and about as thick as a small pen, round, straight. *Germen* oblong, obtusely 3-cornered, dark-green, about half an inch long. *Corolla* apple-green, bordered at the top with crimson, veined and partially streaked, nodding, turbinately campanulate, about 5 inches deep, widening gradually from the base itself, semiringent; *segments* obversely oval, lanceolate, cohering imbricately as far as the faucial membrane, thence detached; 3 *outermost* alternate, rather longer, and as broad again as the others, upwards undulate, short-pointed; *upper middle* one pointing forwards and depressed, farther apart, 2 inches broad; *upper lateral ones* but little more than an inch broad, longer pointed, slanting slightly upwards; *lower lateral ones* similar to the upper middle one, but slanting at the top with a curve towards the *lower middle one*, which last is the narrowest of all, and points downwards. *Faucial membrane* about an inch above the base, scarcely half a line broad, green and crimson; finely denticulated. *Filaments* not so long as the limb, fasciculate, deflectent, particoloured. *Anthers* obliquely incurved, dark purple; *pollen* cream-coloured. *Style* red, but little longer than the stamens.

We did not perceive that the flowers, perhaps the most beautiful of this splendid genus, had any scent.



